OE FORM 6000, 2/69

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION

ERIC REPORT RESUME

ERIC ACC. NO.	CH ACC. NO.	P.A.	PUBL. DATE	ISSUE
ED 042 074	AA 000 612	24	Aug 70	RIEJAN71

IS DOCUMENT COPYRIGHTED? YES ☐ NO ☒
ERIC REPRODUCTION RELEASE? YES ☒ NO ☐
LEVEL OF AVAILABILITY I ☒ II ☐ III ☐

AUTHOR
Suczek, Robert F.; Alfert, Elizabeth

TITLE

Personality Development in Two Different Educational Atomospheres.

SOURCE CODE	INSTITUTION (SOURCE)
CIQ11175	University of California; Berkeley, California
SP. AG. CODE	SPONSORING AGENCY
RMQ66004	Office of Education (DHEW), Washington, D. C. Bureau of Research

EDRS PRICE	CONTRACT NO.	GRANT NO.
0.75;7.60	OEC-4-7-061293-1577	
REPORT NO.		BUREAU NO.
		BR-6-1293

AVAILABILITY

JOURNAL CITATION

DESCRIPTIVE NOTE

150p.

DESCRIPTORS

*Higher Education; *Personality Development; *Experimental Programs; *Educational Environment; *Dropout Rate; Individualized Programs; Individual Development

IDENTIFIERS

ABSTRACT

An experimental college program has been developed to provide a different, less structured program for the first two undergraduate years for 150 students at the University of California. Program content is focused on the study of four periods of crisis and change in western civilization. Students and faculty will read from primary sources, holding discussions in small seminars; faculty will respond to assigned papers either in written comments or in individual meetings with the students. Grades and examinations were eliminated. This research reports investigation of the personality development experienced by participating students compared to that of non-participating students attending more structured courses. The primary objectives of the study are to determine (1) personality characteristics of students selecting each of these programs; (2) nature of students' development in one or another of these educational structures, (3) whether particular characteristics of students and of the college experience tend to facilitate development, and (4) various ways young people develop while they are students in college. Secondary objectives include study of dropout rate from the experimental program, and of the effect of the possible "hot-house" atmosphere of the experimental program on the students. (DS)

GPO 870-390

BR6-1293
PA24

ED 042 074

FINAL REPORT
Project No. 6-1293
Contract No. DEC-4-7-061293-1577

PERSONALITY DEVELOPMENT IN TWO DIFFERENT EDUCATIONAL ATMOSPHERES

Robert F. Suczek
and
Elizabeth Alfert
University of California
Berkeley, California

August 1970

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

AA 000 612

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

FINAL REPORT
Project No. 6-1293
Contract No. DEC-4-7-061293-1577

PERSONALITY DEVELOPMENT IN TWO DIFFERENT EDUCATIONAL ATMOSPHERES

Robert F. Suczek
Department of Psychiatry, Student Health Service
University of California, Berkeley
Psychology Department, San Francisco State College
San Francisco, California
and
Elizabeth Alfert
Department of Psychiatry, Student Health Service
University of California, Berkeley

August 1970

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

Acknowledgments

We are grateful to the interviewers who participated in the study, for their keen interest and many helpful observations:

Mervin B. Freedman, Professor of Psychology, San Francisco State College
Stephen Rauch, Professor of Psychology and Department Chairman, San Francisco State College
Robert Roller, M.D., Psychiatric Department, Student Health Service, University of California, Berkeley

To the interviewer-consultants whose many thoughtful reflections regarding the students and personality change have greatly enriched the study:

Norman Jacobson, Research Political Scientist, Psychiatric Department, Student Health Service, and Professor, Department of Political Science, University of California, Berkeley
Ruth Johnson, Chief Psychiatric Social Worker, Psychiatric Department, Student Health Service, University of California, Berkeley
Harvey Powelson, M.D., Director, Psychiatric Department, Student Health Service, University of California, Berkeley

We wish to express our special appreciation to the students who so generously shared their experiences with us, to the faculty of the Experimental College Program for their participation, and especially to Professor Joseph Tussman for making the research possible and for his sponsorship of the project.

CONTENTS

		Page
	SUMMARY	1
	INTRODUCTION . . . . . Purpose and perspectives of the study. Methodological considerations.	7
I.	SELF SELECTION AND SPECIAL EDUCATIONAL PROGRAMS . . . . . Process of self selection, and its relevance to the outcome of special programs.	23
II.	EDUCATIONAL ATMOSPHERES OF THE TWO PROGRAMS . . . . . A first perspective of the Experimental College Program.	35
III.	GROUP CHANGE . . . . . Personality change in the first two years as reflected in quantitative measures.	51
IV.	DEVELOPMENTAL CHANGE IN RESPONSE TO CHALLENGE . . . . . Change related to the interaction of student characteristics and characteristics of college atmosphere.	63
V.	PERSONALITY DEVELOPMENT AND CULTURAL CHANGE . . . . . Change in attitudes in succeeding generations of college students.	73
VI.	RESEARCH PSYCHOLOGISTS CHANGE TOO . . . . . The process of inquiry generates change.	81
VII.	PERSONALIZATION OF THE EDUCATIONAL EXPERIENCE . . . . . A second perspective of the Experimental College Program.	87
VIII.	PATTERNS OF DEVELOPMENT DURING COLLEGE . . . . . Ideology of change and variety of change.	107
	CONCLUSIONS	131
	RECOMMENDATIONS	135
	REFERENCES	139
	GLOSSARY	142
	APPENDIX	143

SUMMARY

An Experimental College Program to substitute for the customary first two undergraduate years was begun in the fall of 1965 at the University of California, Berkeley. It was intended to provide a different educational structure which would be developed collaboratively by the five faculty members participating in it. The program was intended to develop breadth and relevance to modern life in its delineation of the content of study, to emphasize personal interaction and collaboration between students and faculty and to maximize freedom for the student to take responsibility for his work. Instead of content arbitrarily divided into academic fields and into courses one semester in length, the program devoted two years to the study of some fundamental human problems having to do with freedom, order, justice, authority, etc. During the two years, organization and focus was provided by the study of four periods of crisis and change in western civilization, beginning with Greece during the Peloponnesian wars and ending with contemporary America. The method of work included reading of primary sources by students and faculty and the discussion in small seminars of these readings and the ideas they stimulated. Papers were assigned at intervals and were responded to by the faculty either with written comments or in individual meetings with the student. Occasional lectures before the entire group, either by resident faculty or guest faculty, were presented. Routinely scheduled lectures (at least as the primary mode of teaching), grades, and examinations were eliminated. The program was housed in a separate building on the edge of campus. It was intended as a center for all academic activity as well as a place for informal social gatherings of students and of faculty. The one hundred and fifty students lived separately around the campus.

Compared to this experimental program the lower division program was characterized by more structured courses, discontinuity of subject matter and teaching style, impersonality and distance between student and teacher--especially in large introductory courses--and pressure to perform on schedule. Subject matter was not always related to issues of interest to students.

The research being reported was developed to investigate the personality development experienced by students participating in these two different educational atmospheres. The objectives of the study were to determine 1) personality characteristics of students selecting each program, 2) whether young men and women experience greater or more varied development in one or another of these educational structures, 3) whether particular characteristics of students and of the college experience tend to facilitate development, and 4) various ways young people develop while they are students in college. Secondary objectives included study of dropout rate from the program, and of the effect of the possible "hot-house" atmosphere of the experimental program on the students.

The sample included the one hundred and fifty freshman students (seventy three men and seventy seven women) randomly selected from among the volunteers for the ECP (designated the E group), one hundred and thirty five of those who volunteered but were not chosen for the program (designated C_1) and two hundred and nine freshmen randomly selected from those in the same entering class who had not expressed an interest in the experimental program (designated C_2).

Prior to the beginning of classes in September 1965, the entire sample responded to a questionnaire made up of three parts. The first part consisted of six scales taken from the Omnibus Personality Inventory, Form C: Social Maturity, Impulse Expression, Estheticism, Schizoid Function, Masculinity-Femininity, and Developmental Status. The second part was the Interpersonal Check List, used to describe the self. The third part consisted of the Ethnocentrism Scale and the Authoritarianism Scale. The same measures were responded to again at the end of the second year. In addition, a sample of fifteen men and fifteen women was selected randomly from each of the three groups to participate in the study more intensively by means of a one-hour interview twice each academic year. The first two interviews were structured, and gathered information systematically about the student's activities, associations, academic experiences, family, etc. Subsequent interviews encouraged the student's examination of his current interests, activities and preoccupations.

On the basis of the personality scales, it was found that the entire sample was made up of young people who were at a more complex level of development than the entering freshmen four years previously. It was also found that the students from this entering class who had volunteered for the Experimental College Program were at an even more complex level of development than their peers who expressed no interest in the Program. Their responses suggested the following characteristics for the group: realistic and flexible in relation to others, tolerant and undogmatic, personally free, not having to resort to rules and rituals for managing social relationships, willing to relinquish traditional values and to examine the new and the different, and aware of themselves, including their anxieties and difficulties. As a group they also indicated a level of esthetic interests greater than usual for University freshmen. In brief, the students volunteering for the Experimental College Program were a select group, statistically differentiated from those opting for the regular lower division program.

By the end of the first semester seventeen of the students in the Experimental Program had transferred out of it. Their responses to the personality measures were similar to those of the students choosing the regular program. Their scores suggested they were somewhat more reliant on absolute authority than the students remaining and might be able to function more comfortably in the relatively greater structure of the regular program.

For the five faculty members the Experimental College Program was to be a collegial effort. It was not an easy task for these skilled and experienced teachers to change their customary way of functioning, nor was it easy to maintain the principle of collaboration with no one person deciding for the group. Professor Tussman, the originator of the idea of the ECP, was prevailed upon to make necessary administrative decisions. Changes in faculty membership at the start of the second year made it a virtual necessity for him to act as director of the Program and it became less possible to complete the program as a collegial effort.

Two aspects of the atmosphere of the Program were of particular importance. The first was the Program's relative freedom: maximum time was allowed for thinking and reflection, and development of responsibility was encouraged by permitting the students to create his own work pattern.

The atmosphere of the Program was important in another way. It was possible for the student's education to be relatively individualized and for the educational process to take place in the context of a relatively close personal association with the teachers.

Comparison was made of the E group with the C_1 and C_2 groups in terms of the amount of change between first and second response to the personality scales. All groups made considerable developmental change. The E group began at a higher developmental level and ended at a still higher level. The C_2 group began at a lower level than the E group and made a significantly greater change than the E group, ending at a developmental level very similar to the E group. The C_1 group achieved a degree of change intermediate between the E and C_2 group. Thus the three groups experienced developmental change that tended to decrease the differences that existed among them at the time of entrance.

In order to make further comparisons criteria were established so that, on the basis of the pattern of their initial and final test scores, individuals in the sample were judged as developed or non-developed in the two year period. Developed and non-developed individuals appeared in roughly similar proportions in the E and C_2 groups. These findings suggest that there was no difference in the effect of the two educational atmospheres.

However, when the interaction of student characteristics and program characteristics was taken into account, significant differences in development were evident in the two educational atmospheres. Students from a relatively structured form of family life for whom the ECP's unstructured atmosphere represented a situation requiring a new mode of response, showed developmental change more frequently on our measures. Conversely, students from a relatively unstructured family experience, for whom the ECP was a familiar atmosphere, showed developmental change less often. The same relationship in reverse form

held for the structured atmosphere in the lower division program.

Thus it was concluded that it is not the educational atmosphere alone that is significant. It is the interaction of the student with certain characteristics or qualities of the educational structure which is relevant to the student's development. If the qualities are such as to entail a challenge requiring new forms of behavior and the student is able to respond, development is likely to be facilitated.

Students' development was also observed to be influenced by cultural change taking place at a rapidly accelerating pace. Thus freshmen students in this study earned mean scores on the personality measures which were quite similar to the scores of seniors graduating at the time students in this study were entering the University. It was apparent that both changes in attitudes and in ideologies were affecting responses to the personality measures, and that it was not simply a matter of accelerated development.

But it was also apparent that rapid cultural change was changing the study of change. It changed the nature of the interaction between the subject and the instrument used to measure change. Attitudes and opinions which were unselfconsciously held as natural at the time the personality scales were developed, had come to be reified and included in contemporary ideology as desirable. Thus the subjects and scale items interacted differently at the time of the study than they had one and a half to two decades before.

As a result of the observations thus far the initial questions of the study were broadened to focus more on individual experiences in college. The final assessment by means of the personality measures was replaced with a more appropriate procedure. At the end of the senior year, the students were gathered in groups of five or six (regardless of their membership in the E, C_1 and C_2 groups) and asked to make a prediction of the findings of the study. The group discussions that emerged were taped for later analysis. These observations and the analyses of other data gathered during the latter part of the study led to a number of further conclusions.

The structure of the ECP made it possible for a student to have an educational experience in the context of a personal experience with his teachers. This personalization meant the students had a more differentiated perception of the University, were freer to respond to it and to individuals and institutions within it. For example, the overall dropout rate was reduced and significantly large numbers of students who had characteristics associated with a high dropout rate remained in college throughout the four years. As a result of the personal acquaintance with a member of the staff of the Student Health Service (who was participant observer for this study), significantly large numbers of students used the service.

The exposure to an intimate view of teachers enhanced the student's perception of his teacher as a human rather than as simply an authority. Differences among teachers regarding subject matter underscored the relativity of ideas, concepts, etc., and demonstrated their complexity. Finally, establishment of personal relationships with individual teachers provided continuity in the educational experience for some students and opportunity to try to work out important developmental problems, sometimes with good effects, sometimes not.

As a consequence of the rapid cultural change previously noted, it also appeared that the nature of the interaction of the subject and his natural inclination to develop was changed in some individuals. One important result of contemporary cultural change was that change itself had become idealized as being desirable. The consequence was that often students in college felt it was as important to change (in ideologically defined ways) as it was to maintain a good grade point average.

This rather self-conscious change seemed rather superficial or unsubstantial. A more fundamental change appears to be the developmental change that took place in students over a period of time during which they were involved rather intensively in some activity or interest. In the latter instance there appeared to be little awareness of change on the part of the student until sometime after the involvement and the change had taken place.

Finally, it was apparent that some students retain their values throughout the college experience. Some of these appear to remain essentially the same, while others change in the sense of becoming better differentiated, more complex individuals.

Common themes that were observed in the students' ideology included: the importance of involvement; the importance, in anything the student undertakes, of the contribution his activity will make to the community welfare; the importance of developing a life which in addition to contributing to the community, utilizes his capacities and interests and is fulfilling to him. In this sense, students thought more in terms of life-plans than of careers.

Recommendations were made in three areas. First, it was recommended that special educational programs such as the ECP should make every effort to maximize the usefulness of the effects of the personalization of the educational experience. Development of more formal procedures for the faculty to consult as a group regarding each student was suggested so that if a student requested consultation or guidance from an individual member of the faculty such consultation would have the advantage of integrating various individual's views and experiences with that student and could entail an enhanced and expanded understanding of him.

Second, it was recommended that a large University could usefully offer a number of first programs as alternate options to the regular lower division program. Programs could vary in structure as well as content. Such variety could increase the possibility of more students being presented with a challenging educational structure and thus enhance the possibility of development. It could also provide a mechanism whereby new educational structures might be tried and developed and in which issues of contemporary importance in a changing culture could be made relevant to the students' educational experience.

The final recommendation was that the study of change should concern itself less with efforts at measurement and more with understanding the process of change as it occurs in individual experience. It was proposed that such process could be better observed by engaging students in the research as participant observers and by making it possible for the research to offer individual student-subjects the opportunity to examine their college experience periodically throughout their stay on campus, the latter to be accomplished either in the research setting or in the academic setting. Some subjects in the present study made **such** use of the twice yearly interviews, having found no other opportunity in their entire college experience to do so. Needless to say, it was to the mutual benefit of the student and the research.

INTRODUCTION

In 1965 the Experimental College Program was started at the University of California at Berkeley. The Program was intended to substitute for the first two years of undergraduate courses and to provide the atmosphere of a small school in which teachers and students could involve themselves intimately with their subject matter and with each other. This program was the occasion for initiation of our study. Students would be expected to undergo changes during their years in college. Here we had the opportunity to determine how changes in students in the Experimental College Program might differ from those of students in the regular lower division program. Thus, the central theme of our study is change. The general area of study is the development of young men and women in late adolescence during their years in college. We were interested particularly in the changes that take place in students who are in learning situations that differ in the kind and amount of structure and in the interaction possible between student and teacher. Our first order of interest was to inquire whether young men and women make use of such different educational situations in the process of their development so that their development is in some way enhanced. Do they show greater or more varied development in one or another of these educational situations?

In addition we were interested in learning about the various ways that young people develop while they are students in college. Our interest included the assessment of those students who do not change and those who make a change that seems to contribute little to their development as people or to their being able to define and make a satisfactory life for themselves. We were also intent on learning more about what interests the young men and women in college as well as about the various pathways that they take in pursuit of those interests, including the path that leads away from college before the completion of work for a degree. Because of our previous work (Suczek and Alfert, 1965), we had a special interest in the college dropout.

In the course of our study of change we found ourselves changing too. We changed our ideas about students, about teachers and the educational structure, and about psychological research. In the last year of the study we changed our primary question and method of observation; we had discovered that changes in attitudes and values taking place in our culture were changing the nature of the very process we were studying. No doubt these changes in value had had their beginnings well before our study was initiated, but they were not perceptible to us at that time. The new values made change an ideology. The process of development we were studying--a process which in the past had been taken for granted as a natural and essentially inevitable experience, and which was only occasionally consciously considered--became a conscious concern and was deliberately sought by students. Change itself had become positively valued.

Perspective of the study

> "The liberal college . . . intends to build up in a student the power of self-direction in the affairs of life. It rests upon the assumption, or the assertion, that over against the specialized teaching of men for banking, for scholarship, for industry, for art, for medicine, for law, and the like, there is the general liberal teaching of men for intelligence in the conduct of their own lives as human individuals." (Alexander Meiklejohn, The Experimental College, Harper and Brothers Publishers, New York, 1932.)

> "There is a time when the operation of the machine becomes so odious, makes you so sick at heart, that you can't take part, you can't even tacitly take part, and you've got to put your bodies upon the gears and upon the wheels, upon the levers, upon all the apparatus and you've got to make it stop. And you've got to indicate to the people who run it, to the people who own it, that unless you're free, the machines will be prevented from working at all." (Mario Savio, Free Speech Movement rally, December 2, 1964.)

During the spring and summer of 1965 discussion of the shortcomings of higher education was accelerating, and proposals for changes were proliferating. One of the qualities that was most often held up for criticism was the machine-like aspect of undergraduate education, especially in the lower division, which purportedly ground up succeeding generations of freshmen and made them into unthinking but well-trained cogs that would fit the needs of the contemporary technical society. Other qualities were irrelevance of the course material to contemporary social problems and a lack of choice for the student to be able to pursue his own academic interests. These factors were thought to be compounded by the impersonality of the large classes and a lack of interest on the part of professors in students and in teaching. This rather oversimplified, overstated view of the matter was put forward by vocal student activists and was either shared or at least given recognition by many students and members of the faculty.

A concrete proposal for an alternative to this state of affairs was made by the Chairman of the Department of Philosophy, Professor Joseph Tussman, and was accepted by the Academic Senate and supported by the Chancellor and President of the University. The proposal, The Experimental College Program, was planned to substitute for the first two years of undergraduate courses and would make possible, in a large public institution, a kind of involvement with teachers, fellow students, and with subject matter that is usually to be found only in a small private school. The program was intended to have a limited enrollment and to be housed separately on campus. It would make possible for the student a high degree of collaboration

with teachers and fellow students; he would work with large units or areas of knowledge, defined and integrated primarily by their meaning, and not divided artibrarily by administrative necessity; he would have an opportunity to develop his own interests as they became stimulated by the subject area, and to integrate and elaborate such interests both by himself and together with other students and faculty in small formal and informal groups. Evaluation of the student's progress would be based on his ongoing work, would be on an individual basis and would consist of written and oral criticism and discussion of his work.

It was evident in these plans that this type of educational milieu would afford different kinds of experiences for a student than he ordinarily would have on a large college campus. Aside from its obvious value as an integrative approach to learning and to development of intellectual abilities, the Program was likely to provide students with very different kinds of choices.

In part, then, our general question emerged from the prevailing atmosphere and was suggested by the initiation of the Experimental College Program. We set out to investigate the developmental changes that students experience and how they might differ in this sort of atmosphere as compared with that in the regular lower division program.

In part our general question also followed from previous work. Earlier study of development during this period of life--the years in college--had been sparse until the Mellon Foundation studies carried out at Vassar during the early and middle 1950's. Sanford [a] (1962) has described the developmental pattern which those studies elucidated.

> "We were able to show that, on the average, the four years of college were marked by steady increases in imaginativeness and sensitivity, independence and sophistication of judgment, capacity to express in constructive ways our most human dispositions. Similarly, there were decreases in prejudice, narrowmindedness, and stereotyped thinking. . . . But there were large individual differences, among colleges and among the students in a given college. Some students showed marked developmental changes, some little, and some seemed even to go backwards. What makes the difference? . . . It was our keen awareness that some educational procedures or processes contributed very little or nothing to development, and of the fact that other ways of doing things might contribute a great deal, . . ."

In setting out to do this study we hoped to be able to learn about one other way of doing things and what it might contribute to the developmental process of the students. Because the study was concerned with different educational structures, many psychologists might have seen it as an opportunity to study learning, especially in its cognitive aspects. Our interests, however, were more in the development of the whole person. We were inclined to ask, "Who and what is the student paying attention to, what is he thinking and feeling about, and what does he think and feel about it?"

Theoretical perspective

Our theoretical background was rooted in a dynamic psychology that recognizes development as a multidimensional process in which biological patterning, societal patterning, and self patterning are of equal relevance. This conception puts emphasis on the importance of the earliest encounters the individual has with his growing, changing body, with the world, and with the self. In these encounters the early patterns of selection of response by the infant and child become increasingly directive, if not coercive, in the molding of his ongoing development--a process that Lawrence K. Frank aptly terms "learning to learn" (1966).

Our conception also recognizes the factor of periodicity in the ongoing process of development, successive periods being characterized by different and successively difficult developmental tasks (Erik Erikson, 1950). These tasks emerge from the biological and physical growth that requires new ways of functioning, from the demands and seductions of the socialization process, and from the evolving self structure which gradually comes to make its own demands on the individual in early childhood. Thus, the challenges these tasks present to the individual in their demand for new choices of behavior and the integration of the behavior are central aspects of the developmental process.

As a result we regard the student's development, his pattern of learning or dealing with the world at the time he comes to college, to be of crucial importance to his further development during the period of study. Several of our questions focused on this point. Would the Experimental College Program be selective in that it would attract a particular kind of student or one at a particular stage or level of development? In what way might the student's developmental state interact with the particular milieu he encountered in college? Does the nature of his development make it more possible to make use of the program he is in to pursue his development further? What might be regarded as a challenge, and how would the student choose to cope with it?

Methodology

There were a number of factors that led us to attempt a systematic study of these questions. Notable among prior studies of experiments in education are that of Alexander Meiklejohn's own experiment at Wisconsin (1932), an inspiration for the present experimental program, and the Bennington study (Newcomb, 1943). Both were very interesting reports, but we were a bit condescending about their methodology because, as we wrote in our research proposal, prior studies, to a large measure, "depended on folk observation and anecdotal report." We intended to be systematic in our evaluation. The fact that we had the opportunity to study students in two different educational atmospheres readily suggested a systematic comparison as a part of our research design.

Furthermore, we began this study fresh from the experience at Stanford University and at the University of California at Berkeley, of a similar study in which we participated as interviewers (Katz, 1967). That study, an intensive, longitudinal observation of student development, consolidated and extended much of the original work in this area by the Mellon Foundation studies at Vassar, by following students through four undergraduate years at the two Universities. The developmental status of the entire freshman class was evaluated by means of personality scales, and changes in that status were evaluated by the same scales at the end of the senior year. The students also responded to a detailed personal history questionnaire at the end of the fourth year. Intensive interviews were carried out each semester with selected samples, of moderately large size, of the young men and women being studied.

A similar methodology was used for our study. Our observations during the previous study had suggested that the major developmental shifts take place during the first years of college. Therefore, we chose to use our personality scales at the end of the second year, which was also to be the end of the special educational program, as well as at the two terminal points of college. We intentionally used the same scales in identical form as those used by Katz so that we might compare our respective groups of students without having to be concerned about the comparability of the measures. This proved a fortunate decision because our comparisons led to one of the most important observations of our study, namely that succeeding entering classes of students were changing at a rapidly accelerating rate.

The questionnaire to which our students responded was called "Attitude and Opinion Survey" and consisted of three parts. The first part included six scales taken from the Omnibus Personality Inventory, Form C (Center for the Study of Higher Education, 1962): Social Maturity, Impulse Expression, Estheticism, Schizoid Function, Masculinity-Femininity, and Developmental Status. The second part was the Interpersonal Check List (LaForge and Suczek, 1955), used to

describe the self. The third part consisted of the Ethnocentrism (E) Scale and the Authoritarianism (F) Scale (Adorno et al., 1950). All of these measures had been found in previous studies (Webster et al., 1962) to be sensitive to changes experienced by students during the college years. The following is a brief description of the scales.

Social Maturity (SM). A high score may be taken to reflect non-authoritarianism, flexibility, tolerance, realistic thinking, independence from authority and from rules and rituals, as well as an interest in intellectual and esthetic pursuits.

Impulse Expression (IE). A high score is interpreted as indicating emphasis on sensation, imagination, feelings and fantasy, as well as readiness to express impulses and to seek gratification either in conscious thought or in overt action.

Schizoid Functioning (SF). A high score indicates social alienation, feelings of isolation, loneliness, rejection, possible avoidance of others, hostility, aggression, identity diffusion, daydreaming, disorientation, feelings of impotence, and fear of loss of control.

Masculinity (MF). A high score indicates interest in problem solving and science, rather than in esthetic things, and a denial of adjustment problems, as well as a denial of feelings of anxiety and of personal inadequacy.

Estheticism (Es). A high score indicates diverse interests in artistic matters and activities, including art, music, literature, and dramatics.

Developmental Status (DS). A high score indicates attitudes more like those of seniors than those of freshmen, including greater rebelliousness and freedom to express impulses and less authoritarianism.

Ethnocentrism (E). A high score indicates stereotyped negative imagery and hostile attitudes regarding outgroups and stereotyped positive imagery and submissive attitudes regarding ingroups, which are seen as rightly dominant.

Authoritarianism (F). A high score indicates rigid ingroup-outgroup distinctions, stereotypical imagery, dogmatism, intolerance of ambiguity, a stereotyped conception of the importance of authority, and denial of certain needs, such as dependence or weakness.

Because our over-all plan involved study of a single group moving continuously through the educational process, we were concerned about the representativeness of our group in comparison to other entering freshmen groups. Could our findings about the whole group be generalized to other groups of students entering this institution at other times? We compared our freshmen with the freshmen entering in 1961.

This comparison, accomplished early in the study, brought a major surprise. According to our scales, the 1965 freshmen were far ahead of the 1961 group in their development. It was our first evidence to support the impressions of many observers that the young people coming to college in the sixties were changing and doing so rapidly. We subsequently compared our group of entering freshmen with the group graduated in 1965. Our group, as freshmen, ranked higher than these graduating seniors on these measures of development. These observations made us pay attention to an influence we had been aware of because of other studies (Plant, 1965; Plant and Telford, 1966) but had not thought necessary to take into account because our design basically compared groups in the same general milieu--the Berkeley campus--at the same period of time. We came to recognize that the effect of cultural change on our students was as important as the effect of their immediate personal experience in college.

The first part of our method then was to compare systematically the development in the two educational atmospheres by means of the personality scales. Our interest in the process of development, however, led us to methods more appropriate to the study of process. The best way of learning about a process is to participate in it. Or, as Erik Erikson suggests (1950), it is by our entering into a relationship with our patient--or, in this case, our research subject--that the more abstract or systematic data we have gathered about him can gain meaning. To use Harry Stack Sullivan's term, we became participant observers.

Our primary form of participant observation was the interview. This too was a method we planned to carry out systematically by meeting with students at regular intervals, once each semester. Our first interviews were constructed beforehand, in the form of an interview schedule of four pages stating the general areas to be covered and some specific questions to be asked. The interviewer could write in the information and responses either during the interview or afterwards. A fifth page was used by the interviewer to describe in his own terms his impressions of the student and also to comment on some specific aspects of the student's development. In the interviews we intended to learn about the student's relationship to college--in its practical aspects, academic aspects, and social aspects--his relationship to his family and his relationship to himself. Our questions were based on what we had learned about college students from our participation in the prior study (Katz), on our theoretical speculations about what should be important in the student's experience in relation to change during this period of life and, perhaps dimly in the background, our own remembered experiences as students. In essence, we asked our students what we thought was important and at the end of our schedule gave them a chance to talk about what they thought important.

In spite of the imposition of this structure on them, each student's individuality became apparent. After the second interview we had begun to be able to identify them in terms of some of their

prevailing qualities. Since we were interested in developmental change we were especially attentive to the particular developmental task with which a student appeared to be dealing, and that task and his way of dealing with it gave him the quality we came to identify with him. We changed our interviewing style radically at this point. Although we reviewed carefully our knowledge and observations of college life and of the particular student we were about to interview, and although we formulated what we thought were important questions regarding the particular student to be interviewed, we kept our questions in the back of our minds and deliberately refrained from asking them. Instead we encouraged the student to talk about whatever was interesting him at that time. At the same time, instead of avoiding an effect on the interview, we often tried to have one. By stating our own views on some matter being discussed, we could observe how our student might react to a different point of view, to an observation about himself which he had not previously considered, or simply to an interested participant observer of a different age and generation.

As we introduced this change in our interviewing, interview questions tended to emerge from the interviews themselves. Such questions elicited new information and impressions and tested our assumptions about the student as an individual person.

In addition to interviewing, one member of our research group acted as participant observer in the Experimental College Program itself. He was the Director of the Department of Psychiatry in the Student Health Service on the Berkeley campus. He was identified as such to the students and because of this identity became known to some as the Program "shrink," although he did not in any way function as such. The reason for his presence in the Program was known to the faculty and was stated explicitly to the students: as a psychotherapist he was interested in the process of learning and change and wished to observe that process in a different kind of change-institution--an educational setting--than the one he usually worked in. Although it was obvious to some that, in addition to having a personal interest in the learning process, he was also a member of the research group, his identity as such was never evidently of much import to any of the students or the faculty.

In pursuit of his interests he sat in on the faculty meetings and came to the weekly meeting that included everyone in the program as well as to the occasional evening activities. He attended seminars of individual teachers over periods of time long enough to observe ongoing themes and patterns in the various processes and interactions taking place there. He attended different seminars in order to be able to get impressions of teacher and student styles. In addition, he spent time informally at the building that housed the Program. In the commons room or elsewhere in the house he could engage in spontaneous conservation with students or faculty. During the first year these activities involved at least an average of a full day per week

of time and during the second year somewhat less than a day. His observations were dictated on tape and transcribed for the research files. Within the first few months this method was modified in order to increase the amounts of time allowed for observation. His observations were discussed and recorded as part of the material emerging from a weekly staff conference about the research.

In that conference the observations of the participant observer assumed a place of importance. Gathered in a different way and in a different setting, they presented an enlightening contrast with observations of the same student made during an interview. To one of us interviewing, a student might appear to have certain qualities but those qualities seemed only suggested, only hinted at by the things we learned during the interview. The juxtaposition of this observation with some made by the participant observer often would throw clearer light on such subtile hints, sometimes confirming them, sometimes contradicting them, and would allow us to develop an understanding of a student about which we could feel some confidence.

The mutual enhancing of observations from different sources sometimes was reversed, and we found ourselves with the task of understanding incompatible observations. On one occasion when we were considering observations (made available to us by chance) from three different sources, we felt sure we must be talking about three different young women, not just one. Experiences like these, although making us momentarily long for the simplicity of having one source of data to analyze, kept us acutely aware of the complexity of the problem of understanding the experiences and the development of an individual person.

We were so impressed with these experiences that we made every effort to maximize the number of sources of data open to us. We interviewed most of the teaching assistants who participated during the first year of the Program, and all of the faculty, about their experiences with and impressions of individual students, especially those they felt had benefited or had been adversely affected in their development while in the Program. We were fortunate in that one member of the faculty who taught in the ECP during the first year immediately afterwards came to the Student Health Service as Research Political Scientist. His interests being similar to those of our participant observer and his experience being in teaching, he came to the Psychiatric Department to investigate how learning takes place in a therapeutic situation. He participated in our staff discussions, where his observations of students who had been in his seminars in the ECP gave additional dimensions to our view of a number of these students.

The secretary of the ECP also proved to be an excellent participant observer. She was a young woman with a Master of Arts degree in a social science. She had a keen interest in this experiment in education. She was the only person--among all the staff and students--who was in the building almost continuously from early morning to late afternoon,

five days a week. She thus had the advantage of being able to observe the ongoing pattern of activity in the house. Her continual presence, as well as her natural interest in people, led to her fairly intimate acquaintance with a large number of the students and several of the faculty. Both were inclined to air their troubles in her office and to seek her counsel, so she often had a privileged view of two sides of some of the issues and relationships that arose. Although she had a great respect for privacy and never revealed a personal confidence to the researchers, she did provide us with detailed observation of the public matters that took place in the house.

A third source of data was an information questionnaire, two pages long, to which the students responded at the end of the second year of college and another, one page long, at the end of the fourth year. The first asked for information, about their families and their experiences on campus. We had learned these things about some of our students during the interviews but we wished to know about all of our students, including those we had not interviewed. Some of the questions were related to our expectations of what is important to development, based on our theoretical perspective--for example, the family attitudes toward education and religion. Others were questions based on what we had learned about the student's experiences in college thus far.

The second questionnaire, one page long and answered at the end of the fourth year, was also based in part on our categories and in part on theirs. It asked the students to summarize certain aspects of their college experiences year by year: their living arrangements (including sex of partners) and financial arrangements, their leisure activities, their primary academic interests, and experiences--either especially engaging or discouraging--in their academic work. Inquiry into their plans for immediately after graduation completed the questionnaire.

Other indirect sources of data on which we had not planned but which became available to us during the course of the study were the "Intellectual Autobiography" written by the students at the end of the ECP, the Registrar's records, and the records of the Student Health Service.

So, the three sources of our data were to be the personality scales, participant observation, and the two questionnaires. With the data from the personality scales we expected to be able to answer the questions regarding differences in developmental change that might prevail for students in the two educational atmospheres. The data from the interviees and other forms of participant observation we felt would provide us with a way of understanding the nature of the two atmospheres as students experienced them as well as the campus milieu. Our knowledge of individual students--from the participant observations as well as the questionnaires and interviews--would give us insight into the nature of the developmental changes they experienced.

We proceeded with this design and these methods of data collection. By the beginning of the fourth and final year we had completed much of the quantitative evaluation of the personality measures and developed answers to most of our original questions. And, in the process of carrying out the study, we found we had undergone a number of changes ourselves. First, we no longer were able to consider the two educational atmospheres as sufficiently unitary to be contrasted or compared. We knew too many individual students who were having very different experiences in each of them. The original conception of two different conditions seemed too simple. Second, we felt that the use of the scales was limited by ideological changes that had taken place before and during the period of the study. Student responses to our measures were, to a large extent, in terms of the fashionable ideology which they pursued and not in terms of their personality dispositions. Furthermore, we had developed the impression that change does not take place in a linear form, as our design, using a before-after measure, assumed. Finally, we were increasingly doubtful that change could be related to educational structure; there are too many other events in a student's life, including the cultural change that often makes change itself an ideal.

So, as the end of the study was nearing, our original questions and some of the means of getting some answers to them seemed anachronistic and inappropriate. Instead of adopting the framework that posed the University vs. the Experimental College Program, we felt it would be more appropriate to learn what we could about the different kinds of developmental change that students experience in college and the kinds of personal experience to which those changes seem to relate. We decided we could accomplish this most effectively by further participant observation with the students. Also, our impressions of the Experimental College Program were fairly well supported by observations from many sources. We needed to know much more about the experiences in the regular lower division program, since all we did know directly was what we had learned from our interviews with some (less than 25 per cent) of the students in that program. So, instead of making the planned assessment--by means of another administration of the personality scales with which we had begun--we attempted to engage the students in a spontaneous assessment of their own. All the students were asked to come in to discuss the study with us. Discussions were held in groups of from four to six students meeting with a member of the research staff. The groups were made up according to available time of the students and therefore included a random mix of students from the ECP and the regular program. They were also mixed randomly in terms of the degree of prior contact and participation in the study; some had only responded to the questionnaire, others had talked with us twice each year from the outset.

At the beginning of the hour and a half meeting they were asked to state their participation in the study and their understanding of what the study was about. (The majority had not spoken with us except at the time they came in to respond to our Attitude and Opinion Questionnaire.) After it had become clear to all what the general purpose

and format of the study had been, the students present were asked to write their predictions of the results of the study. The rest of the time was devoted to the discussion that emerged when they read their predictions to the group. The discussions were taped for later more careful study.

In summary, we began with an effort to study systematically the development of young men and women in different educational atmospheres. By the time we had answers to our main questions we had a new question, that is, whether it is really possible to measure change and that to which it relates. At the outset we had been critical of naturalistic observation and anecdotal reports, but we ended with the idea that these methods may be very appropriate to the study of change. In turning to a more naturalistic form of inquiry in the last phase of the study, we set aside the question of the generality of the changes observed. We wished to learn about the nature and variety of individual change.

Sample

All first-semester freshmen accepted by the University of California at Berkeley for the fall, 1965, semester were sent a letter during the summer by the Dean of the College of Letters and Science. He described the Experimental College Program and invited those who were interested to apply. Applications came from 285 students and from among these, 150 students--seventy-three men and seventy-seven women--were selected at random by the faculty to participate in the Program. The only criterion for selection was that each student had satisfied the Subject A requirement, that is, would not be required to take a noncredit course in English Composition in the first semester (approximately 40 per cent of freshmen are required to do so).

We got in touch with these 150 students at the time they came to the Student Health Service for the physical examination required of all new students at the time of entrance into the University. We introduced ourselves, identified ourselves as psychologists doing research with the Student Health Service, and told them something that sounded like the following. "We are doing a study of higher education. It is called the Educational Process Study. We are interested in learning what the people who come to college are like and in what happens to them during the time they are here. Would you be willing to participate in our study by taking an attitude and opinion questionnaire sometime this week?" We did not add any further details unless the student asked for them. All but five of the 150 students were interested in our study and made arrangements to respond to our questionnaire.

We termed these 145 students the "E" group (Experimental College Program), and they formed the first of three groups. The second group (C_1) formed a first control group and was made up of the 135 students who had applied to the Experimental College Program but had not been chosen by the random selection. They were enrolled in the regular

lower division program. They had also been contacted at the time of their entrance physical, and all of them agreed to participate in the study.

A third group (C_2) formed a second control group. This was made up of 209 freshmen who had not been interested in the Experimental College Program, who had satisfied the Subject A requirement, and who were willing to participate in our study. Except for the latter two criteria, these students were randomly selected. They too were enrolled in the regular lower division program.

During the week prior to beginning of classes in September, the entire sample of 489 students responded to our personality questionnaire, the Attitude and Opinion Survey. Following this, a sample of thirty students (fifteen men and fifteen women) was selected randomly from each of the three groups, a total of ninety in all. These students were contacted by letter and asked to participate more intensively in the study by going through a one-hour interview twice each academic year. All of them agreed to do so. A few students decided not to continue after the first interview. Also, some of the students who had agreed to come for interviews dropped out of the Experimental College Program, and some dropped out of school. All of these were replaced in our interview sample with students from the same group with similar scores on the personality scales.

At the end of the second year, when the Experimental College Program came to a close, students in all three groups were asked to respond again to the Attitude and Opinion Questionnaire and to the two-page questionnaire of factual information about themselves and their families. Of the original 489 students, 343 were still on hand and willing and able to respond.

At the end of the fourth year all the students who had originally responded to our questionnaire and who were still on campus or living in Berkeley were reached by telephone and invited to participate in the group discussions. Two hundred and sixty-five did participate in the discussions and answered our second information questionnaire. Early graduation, dropout, transfer, and illness account for the others in our sample.

Considerations relevant to data collection

The spirit with which students entered into the research was surprising and gratifying. There were remarkably few who did not wish to participate when we first approached them. Even so they were willing to talk to us about it, so we were able to get some impressions of their feelings. The primary concern was about their privacy, which they felt would be violated even by responding to our questionnaire. Some blamed this concern on their parents. Some who wished to stop after the first interview also did so in consideration of their privacy. Others simply asked us to accept practical reasons for not continuing, such as lack of time. There were a few students who felt

that the project was not important enough to take up their time. They agreed with the ultimate intention of our kind of research--to improve higher education--but they did not agree with our way of going about it.

The majority of those we asked did agree to participate and did so with a spirit of engagement and cooperation. They felt free to complain and to offer suggestions. They appeared to feel good about contributing to research even if they did not gain directly from it themselves. This view of our study forecast an attitude which we later found to be prevalent among our students; in anything they undertake an important consideration is whether it is contributing to the community well-being.

By the time they were seniors these young men and women were much more interested in being participants in the study rather than simply subjects answering questionnaires. They responded eagerly to the idea of a group discussion of their impressions of the things we had been studying. Quite a few even told us it wasn't necessary to pay them for their time. Of course we did so anyway.

The students who came for interviews felt the most positive about their contacts with us. Quite a few told us it was the only experience of its kind that they had had in college. It gave them an opportunity to review what they were thinking and doing and to gain perspective on it. Some told us it was the only time someone on campus was interested in what they thought and what they were doing.

By the time of the final group meetings the students were interested in the study, inquired about the findings, made criticisms of the methodology, and requested to be notified of publications. Since they knew we would not be identifying any individuals in our writing, we took this to be a mark of their interest in the educational experiment itself and in our study of it.

When we invited their participation in the beginning, we told them it was voluntary and that their personal information would be confidential to the researchers. We had no hidden agenda or strategy in any part of what we asked them to do. They knew our research aims from the outset. We did not emphasize the idea of change or development because we feared that, in their inclination to please, the students might unduly stress that aspect of their lives. Some did anyway.

One ethical consideration arose from the coincidence of some of our professional activities. Several of us working on the study were also working as psychotherapists in the Psychiatric Department of the Student Health Service. Inevitably some students we met as patients were later encountered during discussion in the research conference. It was difficult to refrain from combining the observations from the two sources. After some consideration we did combine the two, to the benefit of a clearer understanding of the student in both the clinical and the research perspective.

Our observations of the students in the ECP are much more elaborate and detailed and our knowledge of that educational atmosphere much more thorough than of those in the regular program. This is so because our basic work force was limited. It consisted of the project director and the assistant research psychologist, neither of whom worked more than half time and often less than half time. The other three who participated in the work did so by interviewing students and meeting with some of the discussion groups and, during the last year and a half, they formed the balance of the weekly staff conference. Our observations of the regular undergraduate program were limited to what we could gain from the students in it. We did not have the manpower to observe directly.

As we progressed through the work of the study we became increasingly aware of the discrepancy between the systematic measures and our knowledge of individual students. The measures led to one kind of understanding--with psychological speculations heavy with abstractions--whereas our personal knowledge led us to believe we were dealing with a very different kind of person than that suggested by our abstractions. Too often we could not put the two together, and in our report we found it best to deal with them separately, considering one under the heading of group change and the other under individual change.

A final word about our participation in the gathering and analysis of the data: the Experimental College Program we are describing in this report is our image of it--an image that emerged from our interaction with the people and the events that took place during the first two years of the existence of that program. We are aware that others may have a different view. We are reasonably certain that our view does not represent Professor Tussman's subsequent effort to carry out the idea of the program with a new group of students and faculty.

In the same vein, the results in the form of generalizations, or the generalized image of the students, emerging from the quantitative aspects of the study are our constructions based on the statistical analysis of the measures. Finally, the images of the faculty and of the individual students are also our constructions emerging from our personal experiences with them.

Our report consists of a series of chapters each of which can be read as a separate paper. They are arranged in a sequence that roughly follows our course in the process of observing and learning about our students during the four years. We appear personally in some of them because as participant observers we personally entered into the process, affected it, and were affected by it.

I

SELF-SELECTION AND SPECIAL EDUCATIONAL PROGRAMS

"It takes a crook to catch a crook," is an age-old aphorism that suggests that the policeman has certain qualities that suit him for the job and implies a certain amount of self-selection for that job. Heist, McConnell, et al. (1961) demonstrate that it takes a special kind of student to "catch" a special kind of college; that it is a student with high intellectual interests who finds the college that will cater to such interests; and, that such self-selection, in part, accounts for the college's unusual productivity of students who do exceptional work.

Maslow (1952) has shown that studies of unconventional behavior are likely to interest volunteer subjects who particularly enjoy unconventional behavior in themselves. Roe's (1953) studies tell us that self-selection functions to produce a degree of similarity in personality characteristics in some professions. In still another related area of study, Heist and Webster (1959) have found that personality scores for groups in different majors differ significantly.

Of course, in the case of colleges, majors, occupations, etc., there is a known entity, with a fairly well defined body of myths, expectations, and images which individuals can perceive and which form the basis for their decision to enter into them. The importance of self-selection in any case is the fact that the people involved bring some uniform characteristics to the situation, and this factor in part is what makes the college, the occupation, or the major what it is and tends to perpetuate it in that form. Similarly, the individual's characteristics may also be perpetuated because of their congruence with the situation; that is, he may not change or develop in other ways as a result of his experience in that college, major, or occupation.

The factor of self-selection is relevant today in connection with the efforts at educational experiments and reform currently under way in our colleges and universities. Since the early part of this decade, experiments with revised curricula and teaching methods have been carried out increasingly, especially in undergraduate programs, where dissatisfaction with the conventional programs has been particularly keen. In this contemporary upsurge of innovation and experiment the question of self-selection is important in several respects. The nature of an experimental program will, in large part, depend on the nature of the students who participate in it. Many of the experiments and innovations are being devised in order to provide options for students so that there will be greater possibility for their intellectual and personal growth. Selection of the participants, if it makes for a homogeneous grouping, may defeat the purpose of the experimental course or program. For example, a special course may intend to provide an experience of freedom in expression of ideas for students inhibited or inexperienced in such expression. If the students who participate lack

inhibitions in expressing themselves, such a course may not only be useless but may actually be detrimental to the development of students who need experience in self-control.

Many of the contemporary experiments allow any student in good standing to participate. That is, in order to provide options for all students who want them, these courses and programs are intentionally not selective. It has been demonstrated that colleges, majors, and occupations can involve a high degree of self-selection. Experimental courses, on the other hand, are new and do not have enduring and well-defined characteristics. Nevertheless, do such courses involve a degree of self-selection large enough to effect their outcome? That is the question being considered.

The four-year study we conducted of the effects of the educational process on personality development provides an opportunity to make some observations about this question. The study, as stated in the Introduction, included students in the regular undergraduate programs at the University of California, Berkeley, and students in an Experimental College Program, a program for beginning students that was intended as an alternative to the first two years at Berkeley. Since the Experimental College Program was a new program, developed largely during the summer immediately preceding its initiation, it had no well-developed image or mythology associated with it. A few of the students who applied for it had seen Professor Tussman, the initiator of the program, on a television show dealing with educational reform and had some impression of what a program initiated by him might be like, but the large majority had nothing to go on except the brief description circulated to all entering freshmen in the form of a letter from the Dean of the College of Letters and Science describing the Experimental College Program and offering those interested an opportunity to apply.

The program was to have a faculty of five men from different disciplines--men who would devote their entire time to working intensively with 150 students in seminars and tutorials. Rather than the traditional division of subject matter in courses, it was planned that four crisis periods in Western Civilization would be the content. Primary sources would be studied collaboratively by faculty and students. Examinations and grades would be dispensed with in favor of careful critiques of students' papers. The program would be flexible, and there would be ample time for students to think and to develop their own ideas. The whole process would be facilitated by students and faculty carrying on their work in a remodeled fraternity house on the edge of campus, where an informal collegial atmosphere could prevail.

All of the students who applied for this program and a similar group of entering freshmen who did not apply for it were included in our study. The entire group responded to an Attitude and Opinion Survey during the first week on campus, and a representative sample agreed to being interviewed periodically while in college.

Students interested in the experimental program differ significantly ($p < .01$) in several characteristics from students not applying for the program (Table 1). Their scores suggest that, as a group, they are relatively more flexible, tolerant and realistic in their thinking; they are less bound by authority as institutionalized in family, school, church, and state, and less dependent on authority, rules, and rituals for managing their social relationships. They are inclined to take a relatively strong position opposing authoritarian and ethnocentric attitudes.

They are freer to express their impulses than other freshmen. They are impunitive in attitude but are able to behave aggressively in a way that is appropriate to the situation; they are more interested in intellectual pursuits and have diverse interests especially in artistic matters of all kinds--they are esthetically oriented. By comparison with other freshmen, they are less interested in science and problem solving and tend to earn significantly lower scores in math achievement tests.

They are relatively more open. They are freer to admit to having problems of adjustment and feelings of anxiety and personal inadequacy, and they are more likely to seek satisfactions in social relationships.

In brief, the personality scale scores show systematic differences in attitudes and values. These differences suggest that the freshmen interested in this special educational venture are relatively more flexible and independent than their peers, have broader intellectual and esthetic interests and are personally more open, more expressive, and more aware of themselves.

The students not volunteering for the program may be seen as more often having a personality like that described for the typical college freshman by Sanford [b] (1962): conventional, compliant to authority, somewhat constricted, and inhibited. He (or she) is dominated by a strong conscience, which is opposed to impulses and subjective feelings and favors a rational, task-oriented life. It seems reasonable to assume that in his struggle to control impulses according to the demands of his conscience, his ego gains much support from the organization, the demands, and the somewhat more authoritarian structure of the typical undergraduate program of required classes.

To put it in other conceptual terms, the students choosing the conventional program more often perceive themselves as being most acceptable, the most personally valued, and the safest in the role of passive learner, looking up to and accepting the authority of the teacher on all matters. "What does he want me to know," is a perfect expression of this position. This position makes for predictability in the world as this student sees it.

By comparison, the students choosing the experimental program more often appear to have a less constricting conscience and an ego that is

TABLE 1

Differences in Personality Measures of Freshman Students

Measure	Freshman Students Applying to Experimental College Program		Freshman Students Not Applying		
	$\bar{X}$	s	$\bar{X}$	s	t
Social Maturity	106.6	15.1	100.5	17.3	4.10**
Impulse Expression	66.7	16.6	63.2	18.7	2.15*
Schizoid Function	51.4	15.4	50.2	15.6	.80
Estheticism	34.9	8.1	31.4	9.0	4.46**
Developmental Status	46.7	9.9	42.4	11.6	3.45**
Masculinity - Femininity	44.5	8.2	48.6	10.3	4.82**
Interpersonal Check List					
Total Words	54.9	10.6	55.2	11.8	.33
Ave. Intensity	20.3	1.7	20.5	1.8	.99
Dominance	3.5	19.4	4.1	20.4	.32
Love	-2.6	19.6	-4.9	22.0	1.23
Ethnocentrism	33.5	10.7	37.8	12.1	4.20**
Authoritarianism	78.1	19.2	83.7	21.6	3.07**
Scholastic Aptitude Test					
Verbal	625.2	70.3	631.1	65.2	.83
Math	579.4	86.3	644.8	86.7	5.18**
Average	611.5	61.7	638.2	64.6	4.00**

**p < .01
*p < .05

freer to attempt integrating conscience and impulse. Or, we could say that the student's sense of value derives from maintaining a more autonomous position in respect to authority and conventional institutions, and in having a special interest in the subjective--his own as well as others'--hence his keen involvement in self and artistic things of all kinds. This makes for predictability in the world as he sees it.

Both the students choosing the ECP and those rejecting it apparently were responding to the qualifying expressions in the Dean's letter describing the ECP: ". . . departs rather sharply from the traditional pattern of lower division work . . ." ". . . the program (will be) flexible, the spirit informal." ". . . experimental program . . . risks as well as rewards." "Problems . . . will call for imagination and flexibility." To one kind of person the images aroused by those expressions could be very appealing whereas to another they could be rather threatening.

There is another important factor to be considered in concluding that there is a consistent self-selection reflected in the personality differences in the two groups. The letter sent by the Dean describing the Experimental College Program made it clear that the nature of the program would present great difficulties to anyone planning to major in the sciences. It is possible then that the differences in personality characteristics reflect a selection due to exclusion of prospective physical science majors. In order that this hypothesis might be evaluated, students in both groups who did not have plans to pursue a science major were compared in terms of the personality scales (Table 2). Even with the science factor taken into account in this way, the scale differences between those interested in the ECP and those not interested are statistically significant. In short, a self-selection based on personality characteristics seems beyond question.

Those students who were selected randomly for actual participation in the ECP as a group had mean scores on our personality measures very similar to the group who volunteered and were not selected, and the same characteristics may be inferred. Two scores that are significantly different ($p = .05$) suggest that the ECP students were even more complexly developed (Table 3). Thus, although the students in the ECP were selected randomly from a sample of volunteers, the self-selection of the volunteers made the ECP students a rather special group.

In an educational program such as this one in which students continue for a period of two years, the process of self-selection continues even after the initial group has been chosen. By the end of the first semester seventeen of the students had transferred out of the program.

As a group they had significantly lower mean scores on two of our personality scales than the students continuing in the program (Table 4). They were less flexible, less tolerant of the unknown and the different, and had less interest in esthetic and intellectual pursuits. In interviews following their transfer they indicated they felt unable to work without more structure or guidance.

TABLE 2

Men and Women Students

Not Interested in a Science Major

Scales	Interested in Experimental College Program (N=181)		Not interested in Experimental College Program (N=103)		
	$\bar{X}$	S	$\bar{X}$	S	t
Social Maturity	106.1	15.0	100.2	18.2	2.98**
Impulse Expression	66.0	16.8	60.9	18.7	2.38*
Estheticism	34.2	8.2	31.3	9.9	2.67**
Developmental Status	45.5	8.2	31.3	9.9	2.95**
Masculinity - Femininity	44.2	8.4	46.5	10.3	2.00*
Ethnocentrism	33.7	10.4	37.8	11.9	3.06**
Authoritarianism	78.1	18.8	83.3	23.5	2.01*
Math	599.2 (n=186)	88.6	624.5 (n=80)	90.8	2.02*
Love	-1.3	20.2	-5.8	20.6	1.80

**p < .01
*p < .05

TABLE 3

Measures	Freshman Students Randomly Chosen For ECP (N=145)		Freshman Students Interested in ECP But Not Chosen (N=135)	
	$\bar{X}$	S	$\bar{X}$	S
Social Maturity	108.3	14.6	104.7	15.6*
Impulse Expression	68.5	17.6	64.7	15.3
Schizoid Function	51.8	15.0	50.9	15.9
Estheticism	35.4	7.8	34.2	8.4
Developmental Status	47.0	10.1	44.3	9.5*
Masculinity - Femininity	45.3	8.2	43.7	9.5*
Interpersonal Check List				
Total Words	55.1	11.0	54.6	10.1
Ave. Intensity	20.2	1.7	20.4	1.8
Dominance	4.5	20.0	2.4	18.8
Love	-2.8	19.1	22.3	20.1
Ethnocentrism	33.1	10.9	33.9	10.4
Authoritarianism	77.7	19.3	78.4	19.3
Scholastic Aptitude Test				
Verbal	632.8	66.0	617.2	74.1
Math	598.8	91.7	595.9	80.6
Average	616.0	63.6	606.9	59.5

*$p < .05$

TABLE 4

Students Transferring Out of Experimental College Program

by End of First Semester

Personality Scale	Transfers N = 8 Men, 9 Women		Continuing Students N = 62 Men, 66 Women		
	$\bar{X}$	S	$\bar{X}$	S	t
Social Maturity	99.9	20.3	109.5	13.4	2.59**
Impulse Expression	66.7	16.9	68.8	17.8	.45
Schizoid Function	54.4	11.8	51.4	15.3	.76
Estheticism	28.7	9.9	36.3	7.1	3.96**
Developmental Status	45.5	11.3	47.3	9.9	.65
Masculinity - Femininity	45.5	7.2	45.3	8.4	.12
Ethnocentrism	36.6	14.2	32.6	10.4	1.44
Authoritarianism	84.4	20.3	76.9	19.1	1.53
Scholastic Aptitude Test					
Verbal	613.4	59.8	635.6	66.6	1.17
Math	585.8	89.7	600.8	92.4	.56
Average	599.9	61.3	618.4	63.9	1.01

**$p < .01$

A basic and general mechanism that makes sense of the phenomenon of self-selection is man's attitude of always orienting himself to the future. Of course, how the future is perceived will determine whether this mechanism is used for the survival of the individual through change or through maintaining the status quo. The principle of "keeping an ear to the ground" may result in different individuals hearing the approach of very different future events or in taking different forms of action to prepare for the same future events. Furthermore, what may be a means for survival for an individual in terms of the way he perceives the world may appear unreasoned or even destructive from someone else's view. For example, it is not inconceivable that a student, pressed uncompromisingly to go to college by his parents' expectations, may choose the college or course where he is most likely to fail--it may be the only road to psychological survival for him. We have already suggested that students from the same freshman class perceived and acted on the same description of the Experimental Program in very different ways, each according to his way of making his world most predictable: some to preserve a familiar way of functioning, some to experience new ways of learning more suitable to their image of their future life.

In the course of either the first or second interview in their freshman year, the students told us about their reasons for making the program choice they did. In many instances their reasons amount to what seem to be merely casual considerations. For example, a number of the students said simply that the program sounded "different," "exciting," or "an interesting thing to try." Some who felt this way also took into account the possibility that it would give them a background not incompatible with the major they were considering. In other words, they had nothing to lose.

These examples, nonetheless, suggest that an important element in their choice was their interest in the new and different and their willingness to take risks. The term "Experimental" seems to have been enough to excite and interest a large number of them and to prompt them to apply.

A second theme of major importance in the student's perception of the ECP is the theme of freedom from authority. There are many varied instances of their seeing the program as a chance to be free to work independently: " . . . a lot of independent time, and not structured." "I hoped the freedom would provide a chance to learn how to organize my work myself."

A very important component of the theme of freedom in their self-perception is the sense of specialness they had about themselves and their ideas, clearly expressed by one student: "The Tussman Program is what I would have dreamed of. A chance to learn about literature and a chance to think and to create. It's my ideas which are important." A variation of the specialness is found in the identification with popular ideas about contemporary youth: "I saw Tussman on TV presenting his ideas in relation to alienated and unsatisfied students..."

It is clear, from our observation and interviews, that many of these students regarded their freedom and independence as important not only in itself but because freedom implies that their thinking can come to some full, creative fruition. That, under circumstances of freedom, they would create was unquestioned by many of them. That they tended to be alienated and unsatisfied was accepted by them as an indication of lack of freedom. Of course, there was an occasional student, more clear and less romantic in his view of himself, who had a more realistic valuation of the freedom of the program: "My reasons for joining the Tussman college were not educationally meaningful ones. It sounded like a good thing to me to delay going through the hustle of the big U. The lack of pressure coupled with my lack of direction were a big part of the appeal."

One major view of the Program by the students, then, was that it was a situation designed to meet their special needs for freedom to express themselves creatively. But another major perception of it was just the opposite. Some of the students who did not apply did so because they perceived the program as being, in some way, restricting. "I decided I didn't want to. It seemed a little limited, no language, no science. Also, you shut yourself off from the University for two years with 150 students." "I wanted to experiment more with different courses." "It sounded confining."

Some of the differences in the way the Program was perceived are reflected in the content various students attributed to it on the basis of the Dean's letter. For some it sounded like philosophy; for some it was history; some thought they were entering upon a study of literature; and for others it was the classics. One student said it sounded "too poetic-artistic a life" for him.

So, for some students the future was "secured" by complying with their parents' wishes for them to be in this program (there were a number who entered the program expressly because of their parents' wishes). Some saw themselves as seeking a freedom they felt they must have to function creatively, whereas others saw the freedom as providing a haven in which they wouldn't have to make choices. It could be inferred that all three of these were maintaining the status quo, each in his own way. Others apparently felt they were seeking a change in themselves; they saw the freedom as an opportunity to learn how to develop their own inner controls, their capacities to deal with ambiguous, unstructured, and many-faceted situations in the future.

Among those who chose the regular program there was also a division of opinion. The Experimental College Program attempted to offer an alternate choice in what was popularly regarded as a monolithic educational atmosphere. Some of the students saw the ECP as too free for them, too unstructured, and chose instead the regular program, the tried and true, which they were accustomed to in their prior educational experiences. But others among these saw the Program as monolithic itself--narrow and confining, committing them to two years of work and

associations they would have little or no choice about--and chose the regular program for its freedom.

To return to the original theme, the Experimental College Program did catch, or was caught by, a special group of students. The individual students in the group varied considerably in many respects, as, for example, their reasons for volunteering. Still, there was a degree of homogeneity among enough of them in respect to certain attitudes to distinguish them from other students in the same entering freshman class.

The particular qualities of this group were also the particular qualities of the faculty and the program, if one is to accept the implication of the description of the program offered the incoming freshmen. Freedom from the usual constraints of lectures, examinations, and grades, freedom to experiment, to innovate, and high intellectual involvement were among the important qualities overtly or covertly communicated about the faculty and the program by the description.

Was this likely to be a good mix? Would intellectual and personal development be possible with this group of students and like-minded teachers? General observations of groups gathered for purposes of interaction--group therapy, intellectual discussion groups, conversation groups--would suggest that a heterogeneous grouping, involving some (not extreme) differences is likely to produce more interaction and hence more possibility of change, than a homogeneous group. However, in the case of the ECP it is clear that in the homogeneous group there were vastly differing views of the program (and of the self) which made for differing reasons for choosing the program and, implicitly, different kinds of interactions.

It will be necessary to study the development of individual students participating in this program to learn what kinds of interaction might actually take place in such a mix of students and faculty and how the participants might be affected. From the observations at this time it was clear that random selection from a population of volunteers did indeed produce a select group. Experimental classes and programs, in attempting to understand their success or their difficulties, must include in their considerations the factor of self-selection. In presenting a program to potential participants it might be important to take into account the needs of the students for whom the program is intended and to stress those qualities in the program that will appeal to those kinds of students. Perhaps a description that includes qualities of a different--and even opposite--nature, so that a variety of choices is apparent, might be a way of counteracting extreme self-selection.

Of course, it is possible that the best all around solution is a trial run. The students who left at the end of the first semester may be thought to have wasted their time. Still, it was a very valuable experience (or could have been), because they learned about themselves:

they learned they could make a mistake and they could do something about it. There is no better lesson in judgment and self-reliance, both qualities considered ideal goals of a liberal education.

II

EDUCATIONAL ATMOSPHERES OF THE TWO PROGRAMS

The regular undergraduate program is simply the aggregate of courses that are offered students in the first two years while they are in the lower division of the university's College of Letters and Science. Most of these courses are required. There is no program in the sense of some planned or coherent organization of courses. There are requirements of a general sort such as will develop skill in foreign languages and in writing one's own language; there are prerequisites which represent background for later specific majors; and there are courses which are designed to give a broad overview of a particular academic field. All of these are taught by a variety of teachers in the many departments and with various interests in teaching. There is no program then, either in the sense of some thematic organization or purpose unifying or relating these courses to each other, or in the sense of communication among these teachers in connection with a common interest in the teaching of lower division courses.

It is difficult to specify the atmosphere of the lower division program. In part the atmosphere will depend on the choices made by the student. Choices are more likely to be available in timing than in content. Once the student has located himself in a particular college or subject area, he has relatively little choice of what he will take although he has some freedom to decide when he will take it. Therefore, one aspect of the atmosphere of lower division is the limitation of choice. Obviously, another is a lack of coherence or organization, or lack of interrelatedness of the student's courses to each other. Furthermore, quizzes, midterm and final exams, together with grades, contribute to the general atmosphere a sense of schedule, pressure, and competition in the "grade point average game."

Because Berkeley is a large campus there is likely to be an air of impersonality as well. It is most apt to be experienced in the lower division. The freshman student is new on campus. Chances are good that he knows no one. His first experience is that of being processed through orientations and examinations (medical and academic), together with a large number of unknown others. Unless he has an unusual program, most of his classes will be relatively large, some so large that his teacher must use a microphone to be heard. The possibilities of his having more than distant, cursory experiences with his teachers are quite limited. They are limited by the large numbers of students, by the teacher's interests, and by the student's own unwillingness to acknowledge his wish to have a relationship with an adult. His contacts with officials of the college are likely to be impersonal and official. His best possibility of a personal contact in the academic program is with the graduate student who is the teaching assistant for one or another of his large courses. Such contact does occur, but it is not known to occur very often.

In the early 1960's there was a growing awareness of some of the shortcomings and limitations that had developed in higher education at all levels, especially in large institutions. These were shortcomings that developed in part through the natural tendency of a bureaucratic organization to compartmentalize and rigidify as it grows in size. In part they were related to a society of young people whose needs were rapidly changing and who felt their needs were not being well met by the traditional programs and courses. Criticism of these aspects of higher education reached an acute state about mid-decade and lent itself to a rather unitary perception of "the University." The image of "the University" consisted of a factory-like enterprise that produces socially acceptable cogs for the society's industrial and business establishment. It is a rather uniform, uniformly applied, and uniformly experienced system that tends to eliminate individuality and creativity and to prevent the development of the students in it except in certain narrow, technical, and skill-oriented directions. These criticisms are overstated but nevertheless they reflect something of the atmosphere as experienced by students.

The ECP, although conceived by Professor Tussman long before, was launched in this context of thinking and, inevitably, in contrast to this monolithic image of "the University," tended to be seen as the polar opposite.

The ECP attempted to provide an educational program with a structure and unifying theme quite unlike the traditional lower division "program" (Tussman, 1969). The program intended to develop breadth and relevance to modern life in its delineation of the content of study, to emphasize personal interaction and collaboration of students and faculty, and to maximize freedom for the student to take responsibility for his work. Instead of content arbitrarily divided into courses one semester long, and into academic fields, the program devoted two years to the study of some fundamental human problems having to do with freedom, order, justice, authority, etc. During the two years, organization and focus was provided by the study of four periods of crisis and change in western civilization: Greece during the Peloponnesian wars, seventeenth century England, nineteenth century America, and contemporary America. The method of work included reading of primary sources by students and faculty (see Appendix for list of readings), and the discussion of these readings and the ideas they stimulated in small seminars. Papers were required at intervals and were fully explored by the faculty either in written comments or in individual meetings with the student. Occasional lectures before the entire group, either by resident faculty or guest faculty, were also used. Once each week the entire faculty and student body met in concert.

Besides eliminating arbitrary division of content into one-semester "courses," other educational procedures which have grown out of bureaucratic needs and which tend to limit, hamper, or segment the

educational process were also eliminated: routinely scheduled lectures as the primary mode of teaching, grades, and examinations. Perhaps it was these changes more than any others that contributed to the unitary conception of the ECP as a polar opposite of the "regular" lower division program. It came to have an image of total freedom, a place where students could do what they wanted and where they were often perceived by their peers in the regular program as doing nothing. Some did do nothing. But we shall return to that later.

The program was housed in a separate building on the edge of campus. It was a large three-story house, previously used by a fraternity and remodeled to accommodate faculty and staff offices, a library and study, a commons room, and several small seminar rooms. It was intended that the house be the center where all academic activity takes place and that it would also become a place for informal social gatherings, for students just to hang out, talk, encounter each other and the faculty.

The faculty developed general plans to carry out the program, but specific month-by-month curriculum and activity planning was left open, to be determined flexibly by the faculty as the program proceeded. The faculty represented membership in five disciplines. Besides Professor Joseph Tussman, who was Chairman of the Department of Philosophy, it included one man from the Speech Department, acknowledged as a campus poet; one who had been Chairman of the Aeronautical Sciences Department; one man from the Department of Political Science, who was a specialist in political theory; and one man from the Speech Department who was a practicing attorney working exclusively with cases involving violations of individuals' civil liberties as guaranteed by the Bill of Rights. This faculty selected five graduate students--one woman and four men--to be full time teaching assistants. All of them were talented students very interested in this educational experiment. A final important member of the staff was the full time secretary of the staff, a young woman with an MA in Political Science also interested in this educational venture.

All eleven of these people were talented, well-educated people, quite different from each other and, probably, each quite certain of the rectitude of his position on many matters, although tolerant of different positions and opinions. It was not easy for the faculty, in their preliminary planning meetings during the summer, to agree on any specific procedures except the general area of study for the first semester, a tentative schedule of weekly events and the first readings. Since teachers are accustomed to working out their own plans and carrying them out in their own classroom, in relative isolation from their colleagues, working together in the ECP was relatively a new experience and one that proved to involve many difficulties. It is interesting to note that one of the greatest difficulties occurred in the situation in which the faculty was likely to be most exposed to each other: the planned weekly assembly of the college at which one or more faculty member was to speak. From the outset these meetings--often abandoned

and then reinstituted--were a source of major disappointment to faculty and student alike.

Some of the difficulties became manifest in the first weeks of the program. All the students had been asked to read Herodotus during the summer and come prepared to discuss him at the opening of the program. For almost two weeks after the opening of the fall semester, there was no discussion of Herodotus. There was no lecture at the weekly general meeting, as had been planned. At the general meeting during the first week, there were a few announcements and a welcoming talk, the message that students heard being, "it's your house, your program." In the second week, again there was no lecture. In fact the faculty, although meeting together with the entire student body and assigning students to small seminar groups, was not very much in evidence in the house during the first week or two. Since some of the teaching assistants who were on hand made themselves available and apparently represented a more approachable version of a teacher, the eager students flocked around them to discuss matters of interest to them such as war, peace, death, God, sex, and drugs. During the first week there were as many as seventy-five to ninety students gathered in various groups and clusters in the house, talking to each other and some of the TA's. There were never again that many of them that came together spontaneously at one time in the subsequent two years.

The fact that many students did gather around some of the TA's did not make some of the faculty feel any more comfortable about their own distance from the students. Nor did it cement relationships with the TA's, who were asked to try not to subvert the program by having "T groups" with the students.

In the third week it was agreed that, at the general meeting, each faculty member would present his favorite passage from the Iliad and discuss his reasons for choosing it. The program had begun. "Joe's College," as it came to be called, was underway.

The idea of an experimental college grew in the imagination of Professor Tussman as a result of his experiences as a student of Alexander Meiklejohn, who had once conducted an experimental program. Early in 1964, after Professor Tussman received a favorable response and promise of support from the President of the University, the idea was discussed by colleagues. A number of them became interested in the idea of an educational program that would be a collegial effort: five professors working together to develop a new curriculum and new ways of working with lower division students. Although it would be an interruption of their regular academic commitments and interests, their research, and their professional advancement in their department, the idea of working together prevailed. The interruption would last only two years. At the conclusion, some other group might wish to conduct an experimental program of <u>its</u> own making.

The faculty members began working together intensively during the summer months preceding the beginning of the Program. As ideas for the curriculum were blocked out, possible readings discussed, ideas for meetings with students considered, the group worked in concert with a dedication to making it a collegial effort. No one acted as chairman or director. There was even an effort to lean backward to avoid anyone's being in that position. At times individuals gainsaid their own opinion to avoid domination of the group. All participated in whatever needed to be decided--planning of the program, selection of the TA's, choice of the house the program would be in, and plans for the refurbishing of the house on a limited budget.

The house that was chosen was in poor condition, and many decisions had to be made concerning repairs and decoration. When repairs were begun and work and material orders had to be signed, one person was needed to do the signing. Professor Tussman agreed to be that person. Along with signing the forms required by the University administration, a host of housekeeping decisions also had to be made, often involving minute and trivial matters. To spare the time of the entire group for more important considerations, it was agreed that Professor Tussman should make the decisions. The five-man faculty continued to work together. As the Program got under way and continuously through the year, problems that arose were considered by the group, and group decisions were attempted. Some problems seemed refractory to a consensus. Under the usual arrangements in an academic department or committee, these would be decided by the chairman or even by a vote. Professor Tussman, even though increasingly having to take the leadership in other matters--and perhaps also <u>because</u> of being put in the leadership role--demurred from being the one who decided, even when urged to do so. Often, instead of being settled, these issues were the occasion for a kind of drift. Repeated discussion bringing no resolution of differences, the matter remained unsettled. Or, individual members of the faculty began carrying out their own solutions in their respective student groups, so that the matter was settled differently by different professors and the nonagreement was tacitly allowed to stand. To the extent that he was identified as the director of the Program, Professor Tussman made decisions in these instances that could be and were taken, by students and other faculty, as the course to be followed by the Program.

As in other of man's communal enterprises it became evident that there was only one moment when all the faculty was truly together. That was the moment in which they all met for the first time and agreed that they wished to participate in an ECP. After that, they were five individuals. There was an effort to develop a community but, as with other faculties, there was a community of general purpose but not often of method. Increasingly Professor Tussman emerged as the director of the Program.

During the first year several crises between faculty, between faculty and teaching assistants, and between students and faculty were

experienced and somehow surmounted. By the end of the year one member of the faculty, who had committed himself for only one year, had to be replaced. In addition, another member of the faculty decided not to continue in the Program, and all of the Teaching Assistants were told they would not be rehired for the second year. To replace the TA's and the two faculty members, three new faculty members were added to the three who continued for the second year.

It became evident that the idea of the ECP conceived by Professor Tussman was quite different from the ideas conceived by the others involved in the program.

Three interrelated ideas are important to an understanding of Professor Tussman's conception of the ECP and its progression during the first two years. First, and most basic, is his conception of the relationship of freedom and obligation. That is, simply, that the members of any group having a specific purpose and organization of leadership, rules, etc., are free to exercise their rights by virtue of voluntarily assuming the obligation to follow the rules and the leadership agreed upon (Tussman, 1960). The second, but related, idea is that the quality of participation of each member of a democratic society will depend on an education for public life and that education must have as its basis the theory of political obligation just stated (ibid). Finally, the third idea, related to these two, is that the educator, being the professional, must be the one who decides on the form and content of the education of the future citizen who, while in school, is considered to be a naive child (Tussman, 1967).

Thus, it would appear that when Professor Tussman spoke of freedom he had in mind the idea that his students would learn to be free by learning the obligations of a free citizen, i.e., to be responsible to the leadership and the rules. This was the central theme in the discourse in which he engaged his students during the two years, both in the examination of the readings and in more general discussions as well.

The crises and changes in the program also tended to center around this theme. Conflict within the faculty often brought to light the implicit question of whether the faculty was free to develop the program--curriculum, interpretation of readings, work requirements--according to its views or whether these things were to be decided in terms of these ideas of freedom and obligation. A majority of the faculty from both the first and second year felt disappointment about the fact that a true collegial effort to create the program had not been possible. Their expectation had been that such an effort would be a unique part of the program. Their experience was that efforts at working out plans together were often unsuccessful. Efforts to develop ideas about the curriculum independently were, of course, discouraged by Professor Tussman. Increasingly during the two years, he found it necessary to make it plain that the program was not unplanned,

that there was not freedom to follow individual wishes, but that, on the contrary, there was to be a definite curriculum and plan of organization that he expected to have followed.

There is one crisis that most of the faculty point to as a salient representation of the conflict in the program. This occurred during the second semester, when Hobbes' Leviathan was being read. As with some other readings, Professor Tussman wished, through Hobbes' central ideas, to get across to the students the doctrine that it is necessary for citizens to obey the state. Not all of the faculty agreed with this emphasis in the Program on the issue of how to be a good citizen. One member of the faculty (one of the two who left the program at the end of the first year) suggested that Hobbes be read as literature. Professor Tussman apparently felt this was equivalent to a refusal to ask "is Hobbes' conception true?", and used his authoritative position in the Program to insist that the latter be the question considered by students in doing this reading.

Similar events took place with the teaching assistants. It should be noted that the teaching assistants were all graduate students, all but one of whom were several years along in their graduate studies. They came to the Program highly recommended by their respective departments as scholars and teachers and, finally, because of their demonstrated excellence had been selected from among a very able group of candidates by the Program staff itself. Their initiation of contacts with students in the first week was disapproved by Professor Tussman; their interest in participating in faculty planning was not considered appropriate and was met with expressed hostility and discouragement by him and varying degrees of lukewarm acknowledgment by most of the rest of the faculty. Their individual participation in the discussion in the seminars that each one was assigned to was also not welcomed by the faculty in most instances. But they had been selected presumably because of their superior abilities as young teachers and scholars; and the effect of the director's discouragement of any responsibilities outside of the ordinary performance of a salaried reader was interpreted by the teaching assistants as demeaning and inconsistent with the promise offered by an experimental program.

There were several confrontations between faculty and students in the first year. Some of the students felt that the student body should participate in the determination of the curriculum. The faculty discussed with the students this issue and some aspects of the curriculum as well, but the decisions about the curriculum were reserved for the faculty alone. The faculty also refused the students' request to participate in regular faculty meetings. Finally, at the end of the first year, the students petitioned the faculty to give the teaching assistants the option of continuing in the Program. The petition was rejected.

One nonacademic interaction illustrates the complexity and the difficulties of the relationships between the faculty and the students in a circumstance such as the ECP, where the experiment includes an attempt to work things out together. The interactions to be described concerned the furnishing of the house. At the outset the students had been told "It's your house, your program." They were also given to understand that they could participate in planning the furnishing of the house, which, owing to poor planning by the administration, had not been furnished at the opening of the semester. Only some wooden tables and straight-backed chairs had been available from the University warehouse. The students were eager to do something for their new home. In the early weeks they were heard to speculate on various furnishings that might make this room or that nook a cozy place in which to sit and talk or read.

Some of the faculty spontaneously encouraged the students to organize a student government with committees to plan, among other things, the furnishing and decorating of the house. Such organizing had not been decided upon by the faculty as a whole, and the students' efforts to organize themselves were not encouraged by Professor Tussman. Informal suggestions to provide student art or student wrought furniture, when funds were not available, were discouraged on the grounds that more comfortable and more elegant furnishings were necessary. The students' contributions to the expense of maintaining a coffee urn in the house were discontinued because Professor Tussman felt that guests in his house should not have to pay for their coffee.

At the end of the first semester the Chancellor's office made available a sum of about $1,000 for the purpose of furnishing the house. Professor Tussman wished that the students would come to a consensus about the use of this money to furnish the house. In an effort to encourage them, he, together with one other faculty member arranged with the wife of a well-known UC professor, who was not on the ECP faculty, to act as advisor and treasurer for a house furnishing and decorating committee of students. At one of the general meetings the students were told of the funds, and it was suggested they select a committee. A number of girls volunteered to meet with the faculty wife. The meeting was a disaster. There were no subsequent attempts to arrange a similar one. The faculty wife could not have been expected to anticipate the hostility or resentment with which the students greeted her. She attempted to conduct an orderly meeting amidst an unreceptive group. Not only were the students unable to cooperate with her suggestions, they were also unwilling to cooperate among themselves. She left bewildered and insulted; the remaining group divided, accusing each other of betraying the Program, of poor taste, etc. Those students who had actively taken part in the humiliation of the faculty wife considered her appointment by Professor Tussman to be a direct statement of bad faith. The girls who had not received her appointment as an insult accused those who had of disrespect and outrageous behavior. Everyone was disappointed and angry.

Professor Tussman and a majority of the staff accused the students of irresponsibility and bad manners. The students said the director was a tyrant, incapable of understanding mutuality, respect, and commitment. No one touched the house for a long time.

During the course of the second semester, the student who had lent his stereo equipment to the program removed it from the house. The people who used the house were desolate. Those students who still frequented the house--and had, by this time, acquired an intimacy with each other and the secretary and two teaching assistants, who were also more or less in residence--prevailed on the secretary to attempt to maneuver the untouched funds toward the purchase of high-fi equipment. This was done with the knowledge of the director but without his permission. The high-fi and a rug, purchased a little later, were the only acquisitions made during the first year.

In the seminars, his students perceived Professor Tussman as highly directive. One student, in an intellectual biography written at the end of the second year, expressed what many seemed to feel. "Professor Tussman's attitude toward his section seemed to be: 'You are young and stupid now; your opinions are for the most part worthless for they have been built on emotion compounded with misinformation. You will listen to what I say, and vehemently disagree in your insecurity, but perhaps five minutes later, or five days, or five years, you will remember what I am saying, and will admit that I am right. And I am not at all impatient. It will come, and I can wait.'"

After the end of the second year, all of the faculty involved in the Program felt that the director had been dictatorial. They were surprised, since that quality did not agree with their previous perception of him or their understanding of the nature of the program. Some were bitter and felt they would not wish to engage in such an experiment again. On the other hand, one member of the faculty expressed the opinion that the importance of Professor Tussman's position and of the ECP was even greater because of the "anarchic challenge that we live with today. This program has a raison d'être that is not just education--it represents a commitment to a doctrine that is of special importance today."

It is not clear how that doctrine might have influenced the students. We have no evidence, either in their overt observations about themselves or implicit in their behavior, that the concepts emphasized changed the ideas or attitudes the students held. We have many observations which suggest that students were more consistently and sharply aware of Professor Tussman than of the other faculty and responded to his authoritative position either by admiring him for his "taking a stand" or by disliking him for being dictatorial. Whichever way they saw him, their feelings about the Program were that, indeed, it was "Joe's College." In general, the faculty tended to agree.

One possible indirect effect, not of the concepts themselves, but of the focus on the concepts considered of primary importance by

Professor Tussman is the following: students who completed the Program and who had been considering a major in Political Science changed from that to another major in far greater proportion than students in the regular program who had planned on majoring in Political Science. (The difference is statistically significant at the .05 level.) It may be that the intense focus on one concept of political man sated their interest and led to their pursuing further studies in other fields.

All the students perceived the program as having one quality and that was freedom. With few exceptions the students felt they were free to pursue their interests and to do so in the manner of their choosing. With few exceptions they perceived Professor Tussman as allowing them that freedom, whether they ended their second year critical of the Program, or praising, or indifferent to it. These different attitudes were often related to how they responded to the freedom. Some of their perceptions of the freedom and their responses to it are evident in the following excerpts from their intellectual biographies, written at the end of the second year.

"The most valuable part of the program for me was the almost excessive amount of time given the student and the relatively complete freedom regarding attendance and assignments. We were left in a position to do whatever we liked, whenever we liked. For me this meant a number of things. At times it meant doing little or none of the reading, not doing papers, not going to lectures. It meant doing photography as intensely as I wanted. I frankly don't think I would have been able to realize whatever aptitude I may have for photography, had I not been able to work at it, at times to the exclusion of almost all else.

"Another aspect of the freedom given me was the time to think things out--things that had nothing to do with school and photography . . . If nothing else that freedom was invaluable--in terms of getting adjusted to a rather drastic change in environment. It seems that Professor Tussman saw the value of time to do nothing but think, and in fact made that time available."

"The setting was not so much positive as nonnegative--as little interference as possible."

"I did not think that learning about this or that was the object of the program, rather, a specialized kind of experience wherein the student is allowed tremendous amounts of unorganized time in which to develop, in his own way, his intellectual habits; and to confront himself, his character, his desire, his future and his past free from the pressures and confusions of the degree-directed University . . . This statement is something of a post facto rationalization for not having been very successful in dealing with the core material. I would probably say that I have not done very much in two years at the EC. The material which did engross me was outside the Program, cultural Anthropology."

"My first reaction was to throw up my books, go swimming. I did not have any grades or tests to worry about, passing the course seemed a cinch. . . . I could not be comfortable. I realized I could not turn my back on my intellectual self while being within an educational metaphor . . . A new viewpoint arose . . . I wanted to study for my own improvement; indeed I became zealous to understand myself in every possible context . . ."

"We have had time to form the intense personal relationships which have proved to be the vehicle from which I have learned the most. Talking and visiting with friends has been my major pastime here, subordinating in influence and importance both studying and reading . . . Because I have so little compulsory work, it has been correspondingly more difficult for me to escape thinking about myself . . . it has produced a greater degree of honesty in us . . ."

"The gift of free time was unexpected, unexplained, undirected, and unwanted. The assigned work I did gladly, but it gave me little satisfaction because it was not demanding . . . It was just the same as high school."

"There is much I want to do. I finally can bring myself to practice the piano two to four hours a day. And composing. Nothing may come of it, but it will be a pleasure to find out."

"The Tussman program allows the student a great deal of freedom and I feel freedom is something which presupposes responsibility. Lack of this responsibility is the main reason many students, including myself, found it hard to acclimate themselves to such a different academic atmosphere. More frequent and more definite writing assignments would be my first recommendation and Tuesday, Thursday periods should accommodate those who wish to participate actively and those who wish to follow the line of discussion."

In brief, although the director held a firm position to the effect that the teacher knows best, at the same time, through both the design and the accident of the program, there was generated an atmosphere of almost total freedom for the student. Some of them used it, some wasted it, and some resented it.

At the outset, everyone in the Program, faculty and students alike, no doubt had expectations and intentions of accomplishing a great deal of satisfying work. All of the faculty and many of the students were mainly disappointed in that expectation, and it would seem that their disappointment had much to do with the difficulties of implementing one of the central ideas of the program. An important part of the faculty plan was to provide the students ample time to read and reread their original texts as well as time to think about the readings and their own responses to them. No doubt the members of the faculty hoped, privately, that the students, freed after years of restriction by the public school systems, would respond to their freedom with a release of

energy and come through with interest, enthusiasm, and intense involvement in their work. It was also likely that the faculty expected the students to take a while to accommodate to this new climate, to learn how to use their freedom. For this reason, besides the latitude they intended to give the students in doing assigned readings and papers, they undoubtedly extended their laissez-faire attitude far beyond their own capacity to tolerate it. Thus, time went by and students did not complete readings in the ample time provided or did not complete written assignments in reasonable time. The professor's impulse to tighten the reins must have been suppressed, at first, with the self-admonition that "They're just beginning to get used to it and don't know how to work under these conditions. They'll come around." But as further time passed and students were not responding or seemed interested in other matters, the professor's anxiety rose sharply and he may even have feared that he was encouraging anarchy in his young students. He took the next occasion to try to bring them into line. Perhaps he chided them and lectured on the relationship of responsibility and freedom.

The experience, repeated periodically by students and faculty, no doubt eroded their earlier intentions and expectation of great accomplishments. One can imagine the professor backing off, distressed at his distrust of his students and of his own principles. The students either complied, feeling it was the same old system, or, more likely, backed off from their teacher by rebelling and challenging his principles even further. It is no wonder that students' impressions of the Program varied between "total freedom" and "dictatorship," and that the faculty often felt demoralized, keenly disappointed in their experiment.

It may be that a similar state of affairs prevailed at times when Professor Tussman and his colleagues differed on some issue. That is, he may have held the expectation that by not insisting on his point of view the others would come to see his position and eventually agree. When the expectation was not fulfilled, a firm director seemed necessary in order to keep the Program on an even keel. As with the students, dismay and retreat from each other on the part of all concerned could easily follow.

The students created another part of the atmosphere of the Program. There appeared to be a yearning for fraternity among them, and it may have been even more compelling than it was among the faculty members. They looked to each other for acceptance and friendship; they looked to the faculty for personal recognition and judgment; they looked to the Program as an opportunity to transcend themselves and their knowledge of the mundane. In short, in varying degrees, the experimental program was vaguely held by all of its constituents to hold a promise to transcend the banality of ordinary experience. Much of the friction that arose during the first year could be attributed to the fact that in the mind of the faculty this transcendence was to be confined to the classroom and the ordinary relationships deriving from it, whereas the students desired to achieve a fraternity among themselves and their

instructors--to live as cherished individuals in a community of teachers and students, working together to achieve the good life and a more perfect wisdom.

This was the possibility felt, unexpressed and untapped, by about thirty students who unofficially became the keepers and caretakers of the house. The remaining students could be put roughly into two general groupings: one group which was seen and known in the house, although it did not attempt to become attached to the house; and the other which was comprised of individuals who were neither seen nor known. The latter students comprised the largest group. They were silent in meetings and, for the most part, in seminars. They were undistinguished. They were known by name to few of their professors and teaching assistants. Their existence in the common life of the program extended no farther than the enrollment list.

The group known, but not there, was comprised of students who were not personally attached to the fate of the Program; however they did participate in the classroom: they spoke in meetings, expressed their views, and contributed to the academic life of the Program.

The group which contributed the most to the academic life of the Program was the one most intensely concerned with the communal life. These students displayed a desire for community and fraternal bonds. They attached themselves informally to each other and the Program. In varying degrees, they identified with the fate and shape of the Program. In effect, they took over the house--leaving their personal belongings as a tangible evidence of their occupation. Their casual mode, unconventional style, and unpredictable moods alienated them as a group from the more orderly majority. Some students complained that the occupation of the house by this exclusive group precluded other groups from enjoying the facilities and space of the house. Many students sought refuge in the established fraternities; others found more congenial friendships outside of those offered by the group at the house.

The group that did develop in the house in an unplanned and quite spontaneous way could not be identified as "Greek"; its members did not enjoy the explicit bonds of fraternity or sorority, but were, nevertheless, looking for each other and for something more. This group could not appropriately be called a community. It was less orderly than a community, less self-conscious, or exclusive. It was an informal group, whose members recognized each other as individuals, rather than as members of the same group. The group existed without formal leadership or expressed purpose. It represented a circumstance of identifiable individuals, who happened to be at a particular place at a particular time, because they were known to each other.

It was this group which served as a human weathervane for the Program: its members were on the whole the most sensitive to the changes in the mood of the faculty. They responded most directly and immediately to faculty overtures; and they attempted to form an articulate student opinion; they were present more than others; they affected events dramatically. They were at once the most committed to the program, and also, the most troublesome. They were most loved and feared.

No doubt it was a handful of students from this group at the house on the last day of the first year of the Program that were responsible for the grotesque sculpture which survived them at the end of the day. It stood like some huge Goliath in the middle of the Commons Room. Its body was an intricately balanced conception of library chair upon library chair, projecting precariously from floor to ceiling. It stood there mysteriously, threatening at any moment to topple crashing to the ground. On the walls of the room, students had tacked up embittered eulogies and poems to the director, expressions of traditional ambivalence toward the teacher.

In the second year the Program was not as turbulent and perhaps not as lively as in the first. Although they met and worked together throughout the second year, from the start the new faculty members were not united into a group as the first faculty had been. Ways of working together as well as conflicts that had developed in the first year were carried over into the second. The new members introduced some new harmony and some new differences. Perhaps because of the first year's turbulence, Professor Tussman made it clear that the over-all program took precedence over individual faculty wishes and predilections, and, in so doing, in the second year he was more identifiable as the director of the Program. Faculty members tended to feel themselves individuals, functioning separately from the others and, in several instances, relating to their students more closely than to each other. They more easily set aside ideas discussed in faculty meetings and tended to introduce their own ideas in their seminars, and to relate readings to their own and their students' interests. The new faculty felt that the morale of the students was poor; without the background provided by the preliminary faculty discussions and the first year of the Program, it appeared to them that the students had been in the habit of doing very little work and that they had little interest in changing that pattern. Efforts at rejuvenating student interest were made by the introduction of new readings and by appeals to the students' interests, however far removed from the themes of the Program. The new faculty even suspected that some of the students had frankly cynical attitudes, and were staying in the Program, although having little regard for it, in order to avoid the draft or the lower division requirements. In their work they felt that the students showed primarily an interest in expressing their own feelings and reactions, albeit doing so in a very creative fashion, and had little interest in analytical thinking or writing. All in all, they felt that personality differences--in staff and in the student body--precluded

any real communal effort and limited what work was accomplished during the year.

The students themselves felt some lessening of enthusiasm for the Program and sensed that, perhaps with the exception of Professor Tussman and one or two others, the faculty had lost interest in teaching, being occupied with interests or intramural conflicts of their own. A number of students expressed the feeling that the Program--as an integrated academic enterprise--slowed virtually to a halt in the last half of the second year. They were increasingly involved in activities and interests elsewhere. Nevertheless, about half of them continued attending scheduled meetings and seminars regularly and responding to work assignments throughout the second year.

III

GROUP CHANGE

At the end of the second year, changes observed in the personality scale scores of our sample taken as a whole were in a similar direction to those observed in college students measured over a four year period (Webster et al., 1962, and Katz, 1967). Both men and women students showed score differences that are significant at the .01 level of confidence (Table 5); their scores were higher in such measures as Social Maturity, Impulse Expression, and Developmental Status, and lower in Ethnocentrism and Authoritarianism. The direction of these changes is consistent with the idea of personality development characterized by increase in complexity of the personality; there was a greater tolerance for differences, an increase in diversity of interests, feelings and impulses were more available to awareness and more appropriately expressed, and there was a corresponding decrease of inhibition. The individual is more free to use his imagination and depends less on convention and stereotype in dealing with other people. Female students expressed less feeling of alienation and social isolation than they did as freshmen. Male students expressed more awareness of their feelings; they had a greater inclination to social interaction; and they were less dependent on an image of themselves that stressed masculine stereotypes; i.e., they no longer felt the necessity to present themselves as "he-men."

Of course, individuals within the group had different initial scores and, although changing in the same direction as the others, might change at a different rate or to a different amount. Subgroups were studied in order to evaluate differences in change of personality scale scores that might be related to initial attitudes. To this end, the whole sample was divided into five groups according to initial scores on the Social Maturity and the Impulse Expression Scales: individuals scoring high on both (i.e., in the highest quartile), low on both, high on SM and low on IE, low on SM and high on IE, and those scoring in the middle range on both scales (Table 6).

All groups scored significantly higher on the Developmental Status Scale, and all but those groups already high scored higher on the Social Maturity Scale. Similarly, there were decreases in the Ethnocentrism and Authoritarianism scores except for groups initially low on these measures. The men in these groups scored lower in the Mf scale, with the exception of the men in the high SM and IE group, who already scored low on the Mf scale at the beginning of college.

In like manner, groups scoring average or low on Impulse Expression had a significantly higher score on that measure at the end of the second year, whereas groups that scored high at the

TABLE 5

Personality Scale Changes Over Two Years

in the Entire Sample

	Men Students (N=147)		Women Students (N=196)	
Scale	Mean Difference	S M.D.	Mean Difference	S M.D.
SM	5.1	1.0	7.0	.7
IE	4.3	1.1	5.9	.9
SF			-2.1	.8
DS	5.7	.6	7.5	.6
MF	-1.7	.5		
E	-4.0	.9	-4.9	.6
F	-7.8	1.2	-9.1	1.2
DOM	-3.8	1.3		
LOVE	6.5	1.4		

TABLE 6

Summary of Mean Changes for Various Personality Groups

Defined by Initial Scores on SM and IE Scales

	HH		M		LL		HL		LH		ALL	
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
SM			+	+	+	+			+	+	+	+
IE	-		+	+	+	+	+	+			+	+
SF	-	-					+			-		-
ES		-			+							
DS	+	+	+	+	+	+	+	+	+	+	+	+
MF			-		-		-		-		-	
ID	-		+		+	+	+			-	+	+
INHIB	-	-	-	-	-	-					-	-
EGO				+	+	+	+	+			+	+
AP	-										-	
BC	-										-	-
DE	-					-					-	-
FG	-											
HI												
JK		+										
LM			+								+	
NO			+								+	
TOTAL	-						-					
INT	-											
DOM	-	-	-								-	
LOVE	+	+	+								+	
E			-	-	-	-		-	-	-	-	-
F			-	-	-	-			-	-	-	-

outset had lower scores at the end of the second year. The latter difference is statistically significant for the men but not for the women students.

In general, the mean scores for the groups suggest a common trend of change except for the group which initially stood at the point on the scale toward which the others were moving. That group showed either no significant change or a change in the opposite direction. This latter would appear to be an artifact of the design of the scale but could have represented, in some instances, a change to a more moderate outlook. The general trend can be understood as reflecting an adaptation to the University climate and the Berkeley student atmosphere, including an emulation of the students perceived as having an ideal image. That image, we have observed, is based on the idea that a young person in college is in the process of re-evaluating the attitudes and values acquired in the eighteen years of acculturation in his family, of discarding conservative attitudes and developing more liberal ones. The developmental model described at the beginning of this chapter is analogous to that image.

Observations by means of interviews suggested that some of the changed scores reflected an effort to adopt such an image, whereas in the case of others the scores may have reflected a basic change taking place as a result of personal engagement in their pursuits in the University community. These and other aspects of change will be discussed further in a later chapter of this report.

Our basic and most important comparison is that of students spending two years in the Experimental College Program and students in the regular lower division program. We considered first the students who were chosen for the ECP (our "E" group) and those who volunteered but were not chosen (our C_1 group). These two groups were nearly identical on our scales at the outset. At the end of the second year there was no significant difference in the amount of change each group had made in personality scale scores.

The results were somewhat different when the ECP students were compared with regular lower division students who had not expressed an interest in the Program. These two groups had scores that were significantly different at the outset. Table 7 shows that although these two groups ended with mean scores that are not significantly different from each other, the C_2 group made significantly greater amounts of change on a number of measures in order to end with scores similar to the E group. Essentially what took place is an evening out of differences. For example, on the Developmental Status Scale both groups changed in the same direction. The change for the C_2 group was greater, but that group began with a lower mean score, so that at the end of two years the E group still had a higher score but the difference between them was no longer a significant one.

TABLE 7

Comparison of Change Over Two Years

Experimental College Students and Students Choosing the Regular Program

	Mean Change				Final Means			
	Male E (N=38)		Male C_2 (N=68)		Male E (N=38)		Male C_2 (N=68)	
Measure	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
IE	.1	12.1	7.6	11.9**	70.4	14.2	69.9	15.8
DS	3.1	6.5	7.3	6.8**	52.5	8.1	50.3	11.3
ID	-.6	4.7	2.1	4.3**	13.3	5.5	13.9	5.1
EGO IMP	.0	7.4	3.3	6.8*	43.7	7.5	42.4	10.1
	Female E (N-38)		Female C_2 (N=78)		Female E (N=38)		Female C_2 (N=68)	
SM	4.5	8.6	9.2	10.8*	115.2	9.1	109.8	15.2*

**p < .01
*p < .05

Although the differences had decreased compared with those in the first year, there were still some differences remaining between the two groups at the end of the second year (Table 8). At the end of two years, men in the Experimental College Program were still significantly more strongly oriented to esthetic interests and activities. By comparison men in the regular program expressed a greater interest in science and problem solving and were much less likely to admit to personal inadequacies and feelings of anxiety. On the other hand, the differences in other qualities such as are reflected in the Social Maturity Scale (flexibility, tolerance, autonomy, etc.) which were evident in the first year were not apparent at the end of the second year.

Women students in the Experimental Program also continued to have some different attitudes when compared with women in the regular program. Essentially, these differences suggested that their level of development continued to be more complex than the level of those in the regular program. They were more independent socially, more flexible, and more tolerant of both their own foibles and weaknesses as well as those of others. The women in the regular program, however, had become freer in their attitudes regarding feelings and impulses and their esthetic interests had developed to the point where they were more like the Experimental group.

In general, then, the students who preferred the regular lower division program started, as a group, at a less complex level of development as defined by our personality scales and, therefore, had a greater distance to travel along the developmental dimensions defined by these scales. As a result, their strides appeared bigger than those taken by the Experimental group. Of course, each of these two groups included a variety of individuals differing in their level of development at the outset. If we assume that their experiences in the two programs were different, it is necessary to compare individuals in the two groups who were similar in their scores at the outset.

Students who had been in the Experimental College Program at least one year were paired with students in the regular program on the basis of closely similar scores in the Social Maturity and Impulse Expression Scales and simultaneously on as many as possible of the other scales in our inventory. Comparison of the mean change on the scales over two years by these matched groups show that there was only a slight difference in the amount of change made by students in the two educational atmospheres (Table 9). There is only one scale that reflects a difference in mean change; according to the F scale, students in the Experimental Program changed more than students similar to them who were in the regular program ($p < .05$). In both groups, as might be expected from previous research (Plant, 1965), the change was in the direction of a lower mean score. In other words, students in the experimental program espoused a greater relativism by the end of the second year.

TABLE 8

Mean Score Differences Remaining at the End of Two Years of College

	Male E (N=38)		Male C_2 (N=68)		
	$\bar{X}$	S	$\bar{X}$	S	t
ES	33.8	6.2	30.4	8.9	2.13*
MF	49.4	6.9	53.7	7.5	2.88**

	Female E (N=38)		Female C_2 (N=78)		
	$\bar{X}$	S	$\bar{X}$	S	t
SM	115.2	9.1	109.8	15.2	2.02*
DS	53.2	6.5	49.2	10.4	2.13*
MF	39.3	7.2	42.3	6.3	2.31*
E	26.8	6.7	31.8	10.3	2.72**
F	64.0	15.7	73.0	19.2	2.52*

**$p < .01$
*$p < .05$

TABLE 9

Mean Change Over Two Years

Male and Female Experimental and Regular College Students

Matched on the Basis of Initial Scale Scores

	E (N=96)		C_2 (N=96)		
	Mean Change	S	Mean Change	S	t
SM	4.0	10.8	5.5	11.7	.90
IE	4.1	11.8	5.1	14.2	.55
SF	-2.0	10.7	-1.1	12.1	.56
ES	- .5	5.9	.4	6.3	1.04
DS	5.7	7.3	6.4	8.2	.60
MF	-1.1	5.8	-1.0	5.7	.19
ID	.5	4.3	1.5	4.3	1.62
INHIB	-2.4	4.7	-2.4	4.9	.06
EGO	1.5	6.6	2.3	7.5	.79
DOM	-4.4	17.2	-1.7	18.7	1.01
LOVE	4.1	17.9	2.5	16.3	.63
E	-4.3	10.4	-3.3	9.6	.63
F	-9.6	14.7	-4.7	14.8	2.30*

*$p < .05$

Five evaluations have been described. We have observed, 1) that all the students, taken as a group, changed in the direction of more complex personality organization; 2) that students initially in an extreme position on the scales showed no change or a reverse change from their compeers--which may be an artifact of the scales; 3) that the general change of the two groups who volunteered for the Experimental Program was the same regardless of whether they were in the Program or in regular lower division courses; 4) that the students who did not volunteer changed more, quantitatively, on the scales and became more like the Experimental group at the end of the second year; and, finally, 5) that there is very little difference in the amount and kind of change made by students who were the same at the outset regardless of which program they were in. Briefly, it can be said that students in all the different groups showed development in their respective academic environments.

These observations of development are based on group means of the personality scales taken singly or in combinations. In order that the idea of development and its possible relationship to the academic environment could be explored further, combinations of scale scores were used to identify individual students who had developed and those who had not. Here, instead of evaluating only quantitative change, the effort was to try to define development by also taking into account the quality of the change. Development and nondevelopment were defined differently according to the level of development at the time of entrance into college. Students scoring in the low or medium range on both the Social Maturity and Impulse Expression scales required a different definition of development than those scoring high on both these scales. In either the LL or MM group, a student was judged "developed" if his standard scores on SM, IE, and ES increased at least five points between the first and second testing. A student with an increase on two of the three scales was judged "developed" if there was not a decrease of five or more points on the third scale. A student was considered "nondeveloped" if his score was lower by five or more points on at least one of the three scales and had not increased five or more points on either or both of the other two. Students who did not change in any of these ways were judged developed if their scores decreased at least five standard score points on both the E and the F Scale, or fifteen points on F alone. Students not changing in any of these ways were judged "nondeveloped" if their standard scores on both the E and the F Scale were higher by five or more points or by ten points on either one of the scales.

To put it in more dynamic terms, a student would be judged developed if he changed from less complex to more, from conventional forms of behavior and inhibition to freedom and appropriate expression of self.

Development of students in the HH group is more difficult to conceptualize and define in terms of the scales. In general, the

HH group was considered as well-developed at the time of their entrance into college. If their final scores were in the same range they were considered as developed. Since the scales have a top limit it seems reasonable to consider an unchanging high score as representing continued development. A student was also judged developed if his SM and IE scores changed moderately; for example, the IE score going down and the SM score going up. However, a student in this group was judged as nondeveloped if his final standard score on the IE Scale was over 65 or rose to 65. He was also judged nondeveloped if his standard score on the F Scale was fifteen points higher, or if his score on SM or IE fell below 45, which would represent a drop to below the average for his original group.[1/] In other words, in this group a student was judged developed who was more complexly developed at the outset and his scores indicated he had continued to be that way, and had not changed in the direction of more simple, rigid, or inhibited functioning.

Not all students could be classified as developed or nondeveloped by using these criteria, but 83 per cent of the sample completing the second testing could be so classified. Of those who could be judged, in the Experimental College 56 per cent of the individuals were judged as developed, whereas of the students in the regular program 51 per cent were judged developed. There were no significant differences when the HH, LL, and MM individuals in the two educational situations were compared separately.

Students from either group who were judged as developed, compared to those judged as nondeveloped did, however, report some activities and interests differently. For example, among the developed students a greater proportion were interested in a nonscience major at the time of entrance ($p < .10$). A significantly larger proportion of them engaged in political activity ($p < .01$) and expressed sympathy toward a major student strike during their stay on campus ($p < .01$). A significantly larger proportion of them reported the largest amount of reading not related to courses ($p. < .01$). Finally, a larger proportion of those students judged developed reported courses having an important personal meaning for them ($p < .10$) in their first two years of college.

The various analyses completed at this point indicated no substantial difference in development, as determined on the basis of these scales, taking place in either the Experimental College Program or the regular college program. Instead, it would appear that an important factor was the level of development of the student at the time of entrance into college. Our data suggested that among

---

1/ Standard scores were calculated for the freshman measures and for the measures at the end of the second year separately so that the evaluation of any given individual's change would take into account the changes in the entire group.

the more complexly developed students more were inclined to choose an experimental program and to achieve further development in it. Among the less complexly developed students, more were inclined to choose the conventional program and to make considerable developmental change in it. Those students who did develop in either of these two cases, more often included students who were actively involved in campus life both in and out of the academic sphere, although this apparently was not a necessary condition.

In conclusion it would appear that in the first two years the developmental changes that took place tended markedly to decrease differences that existed at the time of entrance.

IV

DEVELOPMENTAL CHANGE IN RESPONSE TO CHALLENGE

The task of devising college environments and programs that are to maximize personal growth and development is as complex as the process of human life itself. We tend to differ on what goals, what aspects of personal growth and development, we wish to emphasize in higher education. We also differ regarding how personal growth might best be facilitated. Furthermore, the young person coming to college has been engaged in the process of becoming for nearly two decades. He is well established in his patterns of learning about life, in the manner in which he perceives the world and organizes his experiences and chooses his responses. What aspects of this process are we best able to enhance? Finally, he is a palpable and unique self, easily distinguished from others, and each one of the others is different. If we are to have a program, how can it facilitate all these different processes of development at the same time?

There are also complicated questions regarding what aspects of the college program are important in facilitating the developmental process. Is it the content, the structure, the individual instructor? Or is it each one of these in the general atmosphere of the whole college? If we change one part what happens to the whole? Answers to these kinds of questions are of general interest in developmental psychology and in educational planning. They have specific relevance to the contemporary issue of whether students should have more choice in shaping their educational experience.

Empirical investigations of specific effects of college education have been relatively limited. In one of the most comprehensive single works published in the last decade about the American college (Sanford [c], 1962) the shortest section, comprised of only two chapters, deals specifically with the effects of college education. The work described in this (and in other publications in the interim) has demonstrated some connections between aspects of the college environment and the developmental changes experienced by students. For example, specific attitudes or value orientations of students have changed in the direction of attitudes and value orientations identified with the institution or a subgroup of faculty or students in it. Studies of students at Bennington College are a case in point (Newcomb, 1943). Current studies of residential college programs at the University of Michigan demonstrate similar connections (Newcomb et al., 1970).

More often research indicates some of the more general consequences of liberal education taken as a whole. For example, Katz (1967) describes changes in mean personality scale scores of men and women students between their freshman and senior years at Stanford and University of California, Berkeley, as follows: "a movement toward greater openmindedness and tolerance; a rejection of a

restricted view of life and a humanization of conscience. The complexity of the world is more and more recognized and there is less tendency for demanding pat answers. Along with this the stereotyped view of right and wrong gives way to a broader acceptance of human diversity." In other words, there is a greater complexity and flexibility of the personality emerging from the college experience. These kinds of effects of education have been demonstrated in numerous studies (Feldman and Newcomb, 1969). There is still relatively little understanding, however, regarding the aspects of the educational process that are important in facilitating such change.

One theory we use to try to understand the general process of personality change is that such change begins in experiences in which the individual is challenged to respond in some new way. His habitual form of response is not appropriate to the situation, and he must generate new responses (Wheelis, 1952, 1969; Frank, 1966). The process of development of the kind described by Katz is maximized by similar experiences. In order for this to happen the individual must be psychologically ready to perceive and respond to the challenge (Sanford [b], 1962). As the new behavior is repeated and becomes integrated into the personality, it becomes a new "part," and the previous personality organization is modified accordingly. Ideally, as the process continues, the person becomes more complex, develops more possibilities for behaving, and more perspectives for contemplating the world and for organizing his experience.

In the context of this study we had the opportunity to evaluate this general kind of developmental change and its relationship to challenge experienced in the educational structure. We were able to learn about the interaction of the student's characteristic pattern of functioning and the educational structure he experiences in college.

Method

Our theory suggested that, to the extent that the structure presents a challenge, the student with a readiness to respond to it is likely to change, to show development. Three variables needed to be defined: the student's characteristic way of functioning, the quality of the academic structure, and developmental change. We defined them in relatively broad terms.

The general developmental process taking place in college we defined simply as increasing complexity of the personality and increasing flexibility of functioning. Change in complexity and flexibility we inferred from patterns of scores on several personality measures. Although each measure alone defines a specific variable, taken together they represent the general characteristics in which we were interested. Next, we assumed that the quality of the student's previous life situation was of central importance in the development of his characteristic way of functioning. This we defined, using his family religious affiliation as a criterion, as being either

relatively structured or relatively unstructured. Finally, we defined the quality of the educational structure in college in the same terms, as relatively structured or unstructured.

Previous work has made clear that people belonging to different religious groups are likely to be different in certain personality characteristics and in the atmosphere of the family home. For example Carlson (1934) found religious affiliation to be an important basis for differentiating undergraduate students' attitudes. Defining conservatives as adhering to the existing order of things and opposed to changes of that order, he found Jewish students most liberal when compared to Protestants and Catholics. They were most likely to oppose prohibition, were sympathetic to pacifism, to communism, and to birth control, and believed least in the reality of God. Similarly, Roscoe (1968) in a survey of college students found Jewish students more liberal than Christians. Harris et al. (1932) found students with no religious affiliation less conservative than those with a church preference, and Allport (1954) found less ethnic prejudice among nonchurchgoers.

These findings suggest the generalization that young people with a Christian religious background are likely to be accustomed to a relatively more structured view of things and, conversely, young people without a Christian religious background--i.e., agnostic or Jewish--are likely to be used to a relatively less structured view of things.

A clear explication of this congruence and its relationship to family experience is made by Haan et al. (1968) in a study of moral reasoning of young adults. In describing young people characterized by different kinds of morality, Haan and her co-workers used religious affiliation of the family as one of the descriptive variables. Upbringing in agnostic homes and homes with no religion (related to one kind of moral reasoning) is characterized by fathers who let their sons try new things, and by general parental permissiveness or encouragement to children to live their own lives. Members of a somewhat similar group (characterized by a different form of moral development) are also described as coming from atheistic and Jewish backgrounds; in their homes, children seemed to be indulged. They seemed to lack predictability in their lives, and clarification of rights and responsibilities was lacking. In contrast to these two groups is a group with religious upbringing in Protestantism or Catholicism (characterized by a third kind of morality). They are described as conducting their lives in expected ways, as being more conservative than the others. In their homes they are more influenced by their parents than the individuals in the other groups and have experienced clear rules, punishments, and rewards.

On the basis of the consistency of such observation we identified two groups in our sample: Group One (coming from families affiliated with either a Protestant or the Catholic religion) was

defined as having had a relatively structured family life experience. Group Two (coming from families that were Jewish, agnostic, or that had no religious affiliation) was defined as coming from a relatively unstructured family life experience. We assumed that the structure or lack of it would be broadly but characteristically experienced in family life, although the focus of such experience would be especially sharp in the interactions of parent and child.

There were two educational atmospheres these two groups of students were engaged in. The primary difference between these atmospheres was their degree of structure. The first, more structured educational atmosphere was the lower division program of the College of Letters and Science at the University of California, Berkeley, during the two years from fall, 1965, to spring, 1967. Although some educational innovation--attempting to introduce more choice for the student --was begun on this campus during that period, the lower division program on the whole necessitated fulfilling certain requirements. The result was that the atmosphere was one of limitation of choice. As a rule the lower division courses typically had a format of lectures and required reading. There was a schedule of quizzes, midterm examinations, and final examinations which structured the schedule of reading and the focus of the reading. Grades on the examinations and for the whole course reinforced this scheduling and the structure in terms of "what is one expected to do" or "what the teacher wants." For many students, at least during their first year, academic work took up the bulk of their time.

The second program, the Experimental College Program, attempted to provide an educational program with a structure and unifying theme quite unlike the traditional one. The program intended to develop breadth and relevance to modern life, in its delineation of the content of study, to emphasize personal interaction and collaboration of students and faculty and to maximize freedom for the student to take responsibility for his work. Instead of content arbitrarily divided into courses one semester long, and into academic fields, the program devoted two years to the study of some fundamental human problems having to do with freedom, order, justice, authority, etc. During the two years, organization and focus was provided by the study of four periods of crisis and change in western civilization. The method of work included reading of primary sources by students and faculty and discussion of these readings, and the ideas they stimulated, in small seminars. Occasional papers were required and were discussed by the faculty either by written comments or in individual meetings with the student. There were no routinely scheduled lectures, no examinations, and no grades. A relatively leisurely and contemplative atmosphere was encouraged in which students were free to develop their own pace and follow their own interests.

Of the ten personality measures that were included in the larger study, five were used for defining development: the Authoritarianism

and Ethnocentrism scales (Adorno et al., 1950), and three scales from the Omnibus Personality Inventory (Center for the Study of Higher Education, 1962), Social Maturity, Impulse Expression, and Estheticism. These measures were designed so that development characterized by increase in complexity of the personality and of flexibility of functioning is indicated by a decrease in either of the first two scales or by an increase in any of the other three.

In this study an effort was made to define development by use of the pattern of change in several scales, rather than their elevation alone. Students were classified (see Chapter III) as "developed" if their standard scores on Social Maturity, Impulse Expression, and Estheticism increased, i.e., if standard scores on two of these scales increased by at least five points between the first and second testing and if the score on the third scale did not decrease five or more points. Students were considered as "nondeveloped" if their scores decreased by five or more points on one of the three scales and did not increase five or more points on either of the other two. Students who did not fall into these two classes were judged "developed" if their scores decreased five or more points on both Authoritarianism and Ethnocentrism or fifteen points on Authoritarianism alone, and they were classified as "nondeveloped" if their standard scores on both those scales increased by five points or more or by ten points on either one of the two scales.

To put it in more dynamic terms, a student would be judged developed if he changed from less complex to more, from conventional forms of behavior and inhibition to flexible and appropriate expression of self.

Some students began at a more complex stage of development than others and already scored high on Social Maturity and Impulse Expression at the time they entered, consequently they had less possibility of increasing their scores. Therefore, students who had scored in the highest quartile on these two measures at the start were considered "developed" even if they showed no increase. They were classified as "nondeveloped" if their standard scores on Social Maturity or Impulse Expression fell below the average, to forty-five or less, or if their standard scores on Authoritarianism rose fifteen points. They were also considered "nondeveloped" if their Impulse Expression score rose to over sixty-five, since extremely high scores on this scale suggest inflexibility in self-control. In brief, these classifications include individuals whose development is characterized by impulsive, uncontrolled behavior being brought under flexible control. Altogether 83 per cent of the students in our sample were classified as "developed" or "nondeveloped."

A sample of 489 freshman students entering the University in the fall semester of 1965 agreed to participate in the study. The sample included 145 of the 150 students participating in the relatively unstructured atmosphere of the Experimental College Program,

the balance of the volunteers for that program (135) and 209 freshmen chosen randomly from among those who met the same criteria as the applicants to the special program. These latter two groups were in the relatively more structured lower division program. They all responded to our personality scales at the time of entrance and provided personal information on a brief questionnaire.

At the end of the second year, a second response was made to our personality scales by the students still available on campus. Of this total of 340, 176 were classified as having had a structured family experience (Group One) and 164 as having had a relatively unstructured family experience (Group Two).

Findings

The proportion of students classified as developed was nearly the same in Group One (54 per cent) and in Group Two (52 per cent). However, the two groups showed a different pattern of development in the two academic settings.

Students coming from a structured experience (Group One) who were in the unstructured educational atmosphere were compared with students with the same background who were in the relatively more structured lower division program. Sixty-six per cent of those in the unstructured program were classified as developed, whereas only 46 per cent in the structured program were thus classified ($X^2 = 4.60$, df 1, $p < .05$). This is not true for students coming from an unstructured background (Group Two). Fewer of the students in the latter group who were in the unstructured program were classified as developed compared to those in the structured program (45 per cent and 56 per cent respectively).

Furthermore, when Group One and Group Two were compared in the unstructured program the students in Group One were classified as developed significantly more often than the students in Group Two ($X^2 = 3.26$, df 1, $p > .10$). In other words, a student who had grown up in a relatively structured family atmosphere was more likely to develop in the unstructured educational atmosphere than a student coming from an unstructured experience, for whom there was continuity rather than change in this regard.

On the whole, students who entered the Experimental College tended to be from less conventional religious backgrounds and to be more complexly developed than students entering the regular lower division program (Suczek, 1970) (see Chapter I). Therefore, it is necessary to consider the possibility that the students coming from a more structured family background (Group One) were less complexly developed at the time they began the experimental program. The possibility of their score changing upward, toward or beyond the mean, may be greater and the likelihood of their being judged developed may be increased.

In order to evaluate this possibility--that a discrepancy in original scores might be related to the determination of development--we took a further step. All the students were divided--according to their initial scores on the Social Maturity scale and the Impulse Expression scale--into three groups: those scoring in the highest quartile, those scoring in the lowest quartile and those scoring in the median range. This evaluation shows that the percentage of Group One students classified as developed in the experimental program is greater than the percentage rated as developed in the regular college, regardless of their initial level of complexity as indicated by their initial scores (Table 10). Conversely, Group Two students in the regular college program have a somewhat higher percentage of individuals classified as developed than in the experimental program, regardless of their initial level.

Discussion

Our intention in this study was to learn about some general relationships regarding human development. We were interested in the interaction between the student's past environment--in which he has developed his perspectives of the world, his expectations and modes of action--and the college atmosphere which he encounters. Such interaction is more easily considered in terms of substantive attitudes and values, change being defined in terms of liberalization of the values the student brings to college. In attempting to answer the question, "what kind of educational program is most likely to facilitate development of what kind of student?", our study made it possible to focus on the interaction of a more general quality of life--the relative degree of structuredness in which a person is accustomed to function--as well as to consider the other half of the question, at least in general terms: "what kind of program is likely <u>not</u> to facilitate development of the student?" The plausibility and the consistency of our observations underscore their significance as possible answers to our questions.

A consideration of the prevailing quality of the students' background in relation to the quality of the atmosphere of the experimental college, in terms of the relative degree of structure, suggests that the discrepancy between these environments is greater for the Group One students. Their home background is likely to have provided a more rigorous and controlled atmosphere with clearly defined limits. The relatively less structured and more tolerant atmosphere of the experimental college appears to have been challenging for more of them. We can assume that they were exposed to types of people with whom they were not familiar, and to new styles of living, and new ideas about living. They found encouragement to venture out and experiment with new ideas and new behavior in an environment that supported their autonomy, inquiry, and experimentation. Although the discontinuity in the environment may have been anxiety arousing, it required new adaptive responses. There seems little question that these students felt pressed to produce and elaborate

TABLE 10

Percentage of Development Among Students Coming from Unstructured and from Structured Family Background Whose Initial Development Was the Same

Initial Development	Unstructured Background		Structured Background	
	Unstructured Program (N=55)	Structured Program (N=84)	Unstructured Program (N=47)	Structured Program (N=96)
Low	67%	73%	75%	36%
Medium	23	35	67	52
High	52	79	80	70

such responses. Their stable background may have given them enough integrity not to be made unduly anxious or immobilized by the experience nor to completely reject it.

The students in Group Two came from a less controlled atmosphere in which the laissez-faire conditions resembled the structure of the experimental college. The setting and even the people may have been familiar to many of the students. The permissiveness of the teachers who urged the students to be autonomous (while still privately expecting them to do the "right thing") may well have reminded the students of their own parents. Fewer adaptive new responses were required from them, and they experienced less challenge in the experimental college. Apparently the more structured atmosphere of the scheduled requirements in the lower division program represented a challenge for most of these students. To have limited choice, to be scheduled, to have to conform to a variety of requirements in order to keep their place in school apparently represented a challenge that required some new behavior on their part. The relatively greater frequency of development among the students in that setting supports such a view. It also implies that at least at times and for some individuals there is something salutory about having to do something that is required.

In our larger study there was a tendency for students to choose the college setting which was most compatible with their previous experience. Yet the students who entered the unfamiliar atmosphere--either by choice or by accident--seem to have benefited especially from its unfamiliarity. Would all students in Group One have benefited in the same way from the experimental program? We don't know. We do know that students from Group One who applied to the experimental program and could not get in, had the same relatively low frequency of being classified as "developed"as their colleagues in the same group who had not applied to the experimental program. Apparently the wish to enter that program was not as important to development as the experienced discrepancy of the atmosphere which called for new ways of functioning.

Much consideration is being given these days to the idea that students should have more choice in determining the shape of their education. More electives, and courses with pass/no pass reporting are efforts to implement that idea. Some institutions consider eliminating all breadth requirements. Others consider eliminating the defined major with its basic required courses. Some advocates of greater choice even go so far as to propose that the college should be like a cafeteria, setting out a wide range of intellectual offerings for students to choose from without restriction, according only to their interests.

Our observations have some bearing on these questions. The general thesis that is given support by our observations is that an important factor in the development of the student is the interaction of the student and the educational structure; similarity of

student and structure is likely to minimize the interaction, whereas differences are likely to maximize it. If the interaction entails some challenge to the student, requiring new adaptations, whatever other changes may take place, he is likely to change in the direction of more complexity and flexibility of functioning. In the same vein, a program that offers no challenge is likely not to contribute to the student's development.

The most provocative question here is whether students can choose the "right" structure for themselves--that is, the one that will be developmentally most useful to them. Although students do think a great deal nowadays about change and development, it seems unlikely that many of them would think about themselves in terms of the broad, general ideas of development such as we have been considering. Since the college is organized and defined in terms of intellectual areas, fields of study, and social possibilities, those are more likely to be the students' considerations in making choices and planning their education.

There is a further consideration. If we were able to set up an educational program that requires adaptation and the student were aware of this and "chose to be challenged," would it be the same as his experience when it happens by chance that he is challenged? We know from people's efforts to change and grow by means of their work in psychotherapy that when a person is focused on the idea of changing, rather than on the task at hand--that is, when he is, in a sense, preadapted to change--his very self-consciousness about it can become a major obstacle to his progress. We have known some individual students who intended to change themselves in college who seemed to experience similar obstacles.

Our observations and our thinking about these matters bring us to the position of urging neither completely free choice--cafeteria style--for students to determine their own education nor a completely predetermined college program. The fact is that the young men and women who come to college cover a wide range of developmental needs. What would represent a challenge for each of them would be impossible to determine in a large university setting. The best opportunity we have of challenging a broad range of students is to have a broad range of programs, some of which are required and some of which are not. Thereby, we and they will collaborate in maximizing the possibility of each one encountering some salutary challenge.

V

PERSONALITY DEVELOPMENT AND CULTURAL CHANGE

In the past decade an increasing number of studies have been concerned with personality development of students during the years they are in college. Typically, changes in attitudes and opinions are measured periodically, and these measures are used to postulate changes taking place in the personality. The personality changes are usually considered as developmental, that is, as resulting in a more highly developed person, one who is characterized by greater complexity, greater freedom and autonomy of functioning, and greater acceptance of the relativity of human affairs. For instance, Katz (1967) administered the Omnibus Personality Inventory to the same students as freshmen and seniors. The personality scale changes that took place were reported as increases in Social Maturity, Developmental Status, Impulse Expression, and Estheticism and decreases in Ethnocentrism, Authoritarianism, and Social Alienation. Students were seen as moving towards greater openmindedness, tolerance, and recognition of the complexity of the world. Seniors had increased in spontaneity, appreciation of a variety of artistic/esthetic experiences and showed greater willingness to experiment. They had achieved greater freedom from social conventions and stereotyped views of rights and wrong and were more able to accept human diversity. They had moved towards integration of feelings and thoughts and towards greater acceptance of themselves and of others.

In studies of this sort the changes taking place in students can be considered to be related to a number of different factors. Sanford (1966) points to the importance of the attitudes and personality organization already achieved by the student at the time he starts college. This may determine whether he is open to change, the areas of change, as well as the extensiveness of the change possible.

Perhaps the most thoroughly investigated determinant of personality change in students is the atmosphere of the college community (Sanford [c], 1962). This includes the academic atmosphere of the college as well as the social climate or the peer group culture. The effect of the college atmosphere is sometimes confounded with the effect of chronological aging or maturing of the student. Trent and Medsker (1967) were able to differentiate between these two factors by comparing changes in college students and in individuals in the same period of life who were working rather than going to school. The college students changed in the direction of greater independence, flexibility, freedom from opinionated thinking and greater interest in ideas, whereas the noncollege population either did not change or changed in the opposite direction.

A different point of view, presented by Plant (1965), is that changes in students are related to a developmental process and not

necessarily to the influence of the college. His observations suggest that changes in students are independent of length of college attendance.

In the course of carrying on studies of personality change during the college years we have had occasion to observe that students entering the University in succeeding years appeared to be increasingly sophisticated. For many years the term freshman has carried with it the image of a shy young person who is inclined to cling to conventional forms in dealing with others socially, and who is apt to look up to authority and to identify with those older than himself. Many freshmen are still of this old-fashioned variety. However, increasingly, beginning students appear much more sure of themselves and more independent of authority and conventions. They are relatively more aware of world events and problems and are eager to contribute ideas for their solution. Such student qualities have been reported by the press during the past few years in connection with student activism, but it has been assumed that they characterize only a small minority of students. Our observations suggest that these qualities may be characteristic of increasingly larger numbers of students at the time they enter college.

The purpose of this chapter is to present findings in support of this thesis and to consider some of the implication for studies of personality development in college. Specifically this study compares 1965 freshmen with students who entered the university in 1961 and are seniors by the time the new group enters. A comparison of the two freshmen groups will provide evidence for the picture of the "new" freshman. In addition, a comparison of the 1965 seniors with the 1965 freshman group entering college at the same time the first group graduates, can throw new light on the changes that take place in students during the four years of college and on the relative importance of the changing, external, social, cultural milieu that may effect such changes.

The sample consists of two groups. The first group includes 286 male and 265 female students at the University of California, Berkeley. They were tested in 1961 when they entered as freshmen, and were retested as seniors in 1965 (Katz, 1967). The second group includes sixty-eight male and seventy-eight female freshmen who entered U.C. in 1965 and were tested at that time. This group was randomly selected to form a control group for the study being described in this report. Both the 1961 and the 1965 groups include only students who continued through school with no interruption during the first two years--the period of greatest dropout--so that in terms of persistence the two are comparable.

The questionnaire administered to both groups consisted of the Authoritarian and Ethnocentrism Scales (Adorno, et al., 1950) and a number of Scales from the Omnibus Personality Inventory (OPI, Form C,

Center for the Study of Higher Education, 1962). These measures have been described previously in this report.

Katz (1967) reported that the 1961 freshmen made significant changes in all scale scores when they responded to the same inventory in 1965 as graduating seniors. He summarizes these changes as reflecting a movement towards greater openmindedness, tolerance, flexibility, and realistic thinking; stereotyped views of right and wrong appear to have given way to a broader acceptance of human diversity and to a more humanized conscience. Instead of the original inhibition, the scores reflect a tendency to express impulses and emotions, to act rebelliously, and to have an increased awareness and appreciation of artistic experiences.

For the most part the 1965 freshmen could be described in similar terms. (Table 11) All but two of the scale scores of the students entering in 1965 were significantly different from those of the 1961 freshmen and were either about the same as those of the graduating seniors or even more extreme in the direction of the changes made by the seniors. This pattern is true for both the men and women in the 1965 freshmen group. The two scales that do not follow this pattern are Masculinity (Mf) and Schizoid Functioning (SF). Schizoid Functioning scores decreased during the four years of college, whereas the 1965 male freshmen scores were as high as those of the 1961 freshmen, and those scores of the female freshmen in 1965 were significantly higher than those of the 1961 female freshmen. This suggests that the greater psychological freedom of the 1965 freshmen may be accompanied by feelings of isolation, alienation, disorientation, and identity diffusion.

Katz also reported percentages of "yes" answers by Berkeley male students to some of the items in the questionnaire. Comparison with responses of 1965 freshmen students suggests a continuing shifting of opinions (Table 12). More of the 1965 freshmen had high intellectual and artistic interests (item #1-4) and were eager to be independent (#5-7); fewer were inclined towards conventional behavior (#8-10), towards puritan morality, blind respect for authority, and patriotism (#11-15); fewer adhered to order, certainty, and religion (#16-18); and more seemed to be attuned to a more relativistic outlook (#19-20) than the 1961 freshmen or even the 1965 seniors.

The fact that 1965 seniors and freshmen had similar scores, reflecting similar attitudes in these dimensions, suggests a common influence. Three conditions of personality change during the college years were described in the introduction of this chapter: the personality organization at the time of entrance into college, the atmosphere of the college community, and a developmental process relatively independent of these two. It seems unlikely that these kinds of conditions of change could be the common influence producing the sort of similarity of attitudes that has been described. The two groups of students were a different age, had been exposed to

TABLE 11

Comparison of a Graduating Class and Beginning Class of the Same Year at University of California, Berkeley

MALE

Measure	Freshmen 1961 (N=1095) $\bar{X}$	S	Seniors 1965 (N=286) $\bar{X}$	S	Freshmen 1965 (N=68) $\bar{X}$	S	
SM	84	19	97	20	101	19	z=1.54
IE	57	16	61	18	62	16	
SF	47	15	43	17	47	15	z=1.93
MF	57	8	54	10	55	8	
ES	25	9	27	11	29	9	z=1.57
DS	35	10	43	11	43	11	
F	101	21) N=1020	96	26	83	23	z=4.09***
E	50	17)	44	18	39	14	z=2.50*

FEMALE

	(N=894)		(N=265)		(N=78)		
SM	86	19	102	19	101	15	
IE	52	18	55	20	61	16	z=2.74**
SF	47	15	41	15	51	16	z=4.90***
MF	42	7	40	7	42	6	z=2.50*
ES	29	9	32	9	33	8	
DS	32	11	41	12	40	10	
F	100	22	89	26	84	19	z=1.86
E	46	16	39	16	37	10	

Note: -Significance tests are of the differences between seniors and 1965 freshmen.

-Data for the 1961 freshmen and 1965 seniors is from the Student Development Study, Institute for Study of Human Problems, Stanford University, Stanford. U.S. Office of Education Project #1355. Through the consideration of Dr. Joseph Katz, Project Director.

***$p < .001$
**$p < .01$
*$p < .05$

TABLE 12

Percentage of Yes Responses among 1961 Freshmen, 1965 Seniors and 1965 Freshmen

	Percentage answered yes		
	1961 Freshmen	1965 Seniors	1965 Freshmen
1. I enjoy reading essays on serious or philosophical subjects.	54	58	66
2. I like to read about artistic or literary achievements.	37	44	54
3. I have spent a lot of time listening to serious music.	37	42	47
4. Trends towards abstractionism and the distortion of reality have corrupted much art in recent years.	41	25	20
5. At times I have very much wanted to leave home.	53	61	68
6. I have often either broken rules (school, club, etc.) or inwardly rebelled against them.	38	42	50
7. My home life was always happy.	53	47	31
8. I do not like to see people carelessly dressed.	58	48	41
9. I dislike women who disregard the usual social or moral conventions.	46	24	25
10. I prefer people who are never profane.	31	17	18
11. What youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.	53	22	21

	Percentage answered yes		
	1961 Freshmen	1965 Seniors	1965 Freshmen
12. More than anything else, it is good hard work that makes life worthwhile.	52	36	26
13. The surest way to a peaceful world is to improve people's morals.	37	25	26
14. In the final analysis parents turn out to be right about things.	79	53	53
15. We should respect the work of our forefathers and not think that we know better than they did.	40	19	16
16. I don't like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.	42	28	22
17. In religious matters I believe I would have to be called a skeptic or an agnostic.	40	62	65
18. God hears our prayers.	64	38	39
19. Moral codes are relevant only when they fit the specific situations; if the situations differ, they are merely abstract irrelevancies.	49	57	59
20. The only meaning to existence is the one which man gives himself.	70	78	78

different sorts of school and social experiences, and were at different developmental stages. The nature of the attitudes that were shared by these two groups, however, suggests that the common influence could be the social revolution taking place especially in the younger generation throughout the world. A large part of that revolution is youth refusing to be silent, insisting on emancipation, on being heard. This protest may arise from early childhood experiences; these two groups of middle class Americans were exposed to the post World War II child rearing practices which stressed the importance of the child's wishes, autonomy, and self-determination. Or one may consider the revolution related to aspects of the general social change. A social change, brought about by rapid technological change, especially involving the recognition (by minority groups as well as youth generally) of the disparity between ideals and practice and between the haves and the have-nots. Or one may understand the revolution in terms of all of these factors and others as well.

The important consideration here is that youth is changing especially in social outlook and attitudes and in interpersonal style. In part it may be the young people's response to their experiences in the world as they perceive it. In part it may be the younger youth emulating the older youth, taking on their style and their attitudes. Our interviews with students during their four years in college suggested that both kinds of influence are important. Thus, the mean scale scores of the two groups presented earlier can be seen as reflecting, in part, strongly and genuinely held attitudes and, in part, attitudes that are important because they are regarded as the hallmark of youth. Young people of all ages are exposed to these attitudes and to the events that tend to generate them, through the mass communication made possible by modern technology. The whole process of change is apparently accelerated by this exposure.

Do the scores of the 1965 freshmen represent the same level of development as the similar scores of the seniors? By the development we would mean development of the total personality. It seems likely that the 1965 freshmen were more complex in their over-all personality development than the 1961 freshmen; they were exposed to more and had to respond to more than the 1961 freshmen did at the same age. However, it must be recognized that they had hardly had the time to integrate much of this experience into the total functioning of the personality. In that sense they were not as well developed as the seniors who had had time and opportunity, on their own, with peers or with teachers, to review, to digest, and to integrate at least some of their major experiences. At least for the women students, the higher freshmen scores on the SF scale would suggest a lack of integration and a greater sense of alienation of the part of the students in the 1965 group.

Some other considerations are important. During the period in question--1961 to 1965--Berkeley became recognized as one of the world centers for the youthful revolution and attracted a larger number

(probably a disproportionately large number compared with other campuses at that time) of young people characterized by the attitudes that are represented in the scores reported. Thus, the 1965 freshmen scores may represent a higher level of development in larger numbers of freshmen students than had been entering U.C. Berkeley in previous years. In other words, the findings may represent a particular quality of the Berkeley campus in the period of the early 1960's. It will be important to observe whether this higher level of development is evident in beginning students at other colleges and universities and whether it continues to be evident in succeeding classes of students.

The possibility of such accelerated development in young people must be taken into account in studies of personality change generally and in studies of change during college particularly. In attempting to understand what experiences during the college years are dynamically related to the changes taking place, it will be necessary to take into account that, as McLuhan (1967) says, the whole world is a village. Everyone, at least in technological societies, can be aware of events throughout the world often while they are happening. Students' experiences not only on the campus but in the world "village" must be considered. Furthermore, ways need to be devised for evaluating and describing development that take into account the total personality. Some aspects of personality functioning such as complexity, social and political attitudes subscribed to, and independence of thinking can be evaluated by means of the kinds of scale used in this study. More subtle changes in the extent and depth of engagement in interpersonal relationships, in the maturity of long-range interests, and in stabilization of identity are more difficult to evaluate. One might have expected the 1965 seniors to differ from the freshmen in such personality qualities.

A final thought regarding one of the implications for higher education: at the time the Social Maturity and the Impulse Expression scales were developed, it seemed important that the college consider how to "open up" the shy, inhibited freshman and help him to be more able to use his feelings and impulses in making decisions for independent action. Now, at least at some campuses, colleges may need to consider the opposite question: if students are already accustomed to act on impulse and to act independently when they arrive in college, how can it be made possible for them to learn to postpone action and to become engaged in tasks that they will carry through to a satisfactory conclusion?

VI

RESEARCH PSYCHOLOGISTS CHANGE TOO

The uniformity of research published in our psychological journals has always seemed to me oddly unnatural. Article after article in journal after journal presents a hypothesis, a more or less pragmatic test of the hypothesis, and the results of the test usually with a few brief, highly qualified statements about some of the general implications of the findings. Rarely does the researcher say anything to the effect that he was wrong or, more to the point, that he has changed his views of the matter under study as a result of his investigation. If the old dictum, that we learn by doing, is valid, then something more must be happening to psychologists who are doing research than is usually reported in the literature.

For some years I[1] have been a psychologist practicing the kind of psychotherapy that attempts to investigate, rather than to shape, the individual. The intention of such investigation is to help the individual in his efforts to learn about, to bring to light, his difficulty in living, so that he might, if he wishes, change his ways. In the process of such investigation I have often had the experience of finding that--even as my patient is changing his view of things, so, also, am I--and that I, as well as he, end with a very different conception of one or another aspect of human life. Recently I have had the same experience in attempting to carry out a formal research. When I began my research, I had not expected myself to change. My academic preparation for doing psychological research had not led me to expect to do so. Furthermore, I did not make the connection between investigation in the psychotherapy office and in the research office, and it, therefore, came as a surprise when, in the process of my research, I began to change my views of the subject under study as well as of the way I had set out to study it.

Both the clinical experience and the more recent research experience have focused questions for me about the nature of psychological research. Particularly, why does psychological research--which is, after all, considered one of the "life sciences" and which addresses itself to questions about life--so often seem so totally removed from life? My answer is that we psychologists too infrequently acknowledge error and change in <u>ourselves</u>, both in our conception of what we are studying and of how we are studying it. Too often we are inclined to cling to our theory, our concepts, and especially our research method, despite repeated evidence that it isn't working. I am suggesting that psychological research has little to say about the problems of living today because we too often refuse to acknowledge that we are wrong in our methods of study.

---

[1] Dr. Suczek in this chapter describes the effect of the research process on him as an individual rather than as part of a research team.

In 1965 I began a study of personality change in college students at the University of California, Berkeley. I planned to observe students through four undergraduate years, taking note of who changed, how, and why. The atmosphere at that time--this was the period immediately following the Free Speech Movement at Berkeley--was one in which discussion of the shortcomings of higher education was accelerating on the campus largely because of criticism insistently voiced by students. In the extreme view, the University was likened to a factory supplying the industrial society with cogs. The faculty and administrators were regarded as impersonal. Students were thought to have little (if any) choice in a curriculum in which, moreover, classes were too large and the subjects irrelevant. Students thought of themselves as overburdened with "busy work" and as having no time to think or to develop. In this atmosphere, the Experimental College Program was instituted to offer the beginning freshman a different choice for the first two years. The program, as indicated earlier, was to have a faculty of five men from different disciplines--men who would devote their entire time to working intensively with 150 students in seminars and tutorials. Rather than the traditional division of subject matter into courses, it was planned that four crisis periods in Western Civilization would be the content. Primary sources would be studied collaboratively by faculty and students. Examinations and grades would be dispensed with in favor of careful critiques of students' papers. There would be ample time for the students to think and to develop their own ideas. The whole process would be facilitated by students and faculty carrying on their work in a remodeled fraternity house on the edge of campus, where an informal collegial atmosphere could prevail.

Prior studies--similar to the one I was proposing--had looked at personality change taking place during the college years. This new program, however, offered an opportunity for a more differentiated kind of study, one that would look at the effects of different educational structures on personality change. The research, therefore, was planned so as to include students in this special program as well as students in the regular undergraduate program. It seemed a reasonable assumption that those in the special program, having to cope with a different sort of environment, would change in different ways and at a different rate. The prevailing trend of criticism viewed undergraduate education as too rigid and mechanistic; this view made it easy to think of the two academic situations as more or less polar opposites. (Because of its collegial atmosphere the experimental program seemed almost like an antiuniversity.) The requirements of good research design tended to reinforce this view. The special program was designated the experiemental condition and the students in it the experimental subjects; students entering the lower division program at the same time became the control subjects. Because the students in the special program were chosen (randomly) from among volunteers, a special control group was made up of the volunteers who weren't included in the special program and who had to enroll in courses in the regular program. In this way a control was also available for the factor of self-selection.

By means of a variety of attitude and opinion scales--mostly taken from the Omnibus Personality Inventory (Center for Research and Development in Higher Education, 1962)--these three groups in the two conditions were to be measured (as stated in previous chapters) as to personality characteristics, complexity of development, etc., at the time of entrance into college and then again at the end of two years and of four years of college. A representative sample of men and women from each group was to be interviewed once each semester in order that we might learn at first hand about the experiences students in each group were having and how they were dealing with them.

The experience of carrying out this study was something like a reversal of that experience of Alice (in Through the Looking Glass) in which she finds herself running and running and running, the wind and landscape moving furiously past her, and, in spite of all her activity, eventually realizing that she is getting nowhere. The research, on the contrary, was attempting to stand still and to measure carefully by means of controls and careful comparisons, but the experience was one of constant change.

Perhaps the most stable outcome of the study was the observation that the experimental and the control groups were different at the outset, according to our measures, and after two years they ended almost alike. More specifically, the group that volunteered for and participated in the special program could be described at the outset as more developed in various ways--especially in being more self-confident--and the group that chose the regular program was less well-developed, but in the two years the latter changed more and caught up with the first group.

It was soon evident that individuals in each of the two groups were behaving very differently from the group means. Students who had started out with a high degree of self-sufficiency and independence of judgment appeared to be changing, according to our scales, in the direction of more authoritarian attitudes (in fact dependence on absolute authority). This happened in the very program that we expected would foster the opposite kind of outlook. On the other hand, in the regular program, which was presumed to be rigid, stultifying development by its impersonality and lack of freedom, some students were making noticeable developmental change. Of course, this was to be expected in some degree; the measure of a central tendency is based on and represents diverse responses of individuals in the group. Such variation, however, underscored the fact that the differences in group means--even though statistically significant--had little to do with what was actually happening for students in college.

The interviews, focused on the individual students' experience, also told a very different, more varied story than the group measures. Aside from obvious and perhaps superficial uniformities, both the experimental and the control conditions were being experienced very differently by different students. It began to be evident that the

original idea, to compare the usual undergraduate program with the special program, was too simple. Neither program provided the unitary experience that the research design assumed. The usual program was not the monolithic machine it had been assumed to be. Students in it were creating programs for themselves that were just as imaginative and relevant as that conceived by the faculty of the special program. Some students not only had time to think but were able to do so even while carrying extra courses that would lead to completing degree requirements at an accelerated rate. Similarly, the special program was far from providing anything resembling the unitary experience that was implied in the research design. The five members of the faculty perceived their roles differently--despite fundamental agreement about the nature of the program--and among the 150 students there were many different ways of relating to the program.

A changing view of students began to develop. I had started the study with a special interest in the "turned on" student; the student who appeared relatively free to use his own resources and especially his imagination, who was curious and seeking varied experiences, and who was able to verbalize his thoughts and feelings easily. As the first two years of the study went by there was a growing sense of disappointment because these students, who had seemed so unusual and had shown a great deal of promise, were not going anywhere. Developmentally, they were much the same as when they had first come. On the other hand, some of the "straight" students, much more conventional in outlook, were seriously engaged and changing. They were thinking about matters relevant to their life, they were arranging their academic program to facilitate that thinking, and they were pursuing their intentions consistently and, more important, to some kind of completion.

My fellow researchers and I also began to realize that students' complaints about college--irrelevance, impersonality, inflexibility--were, at least some of the time, to be taken as a sign of the times. It is fashionable to complain about these subjects.

A similar observation emerged to change our view of change. It became evident that change is part of student ideology. It is considered a mark of success to change while in college, and, therefore it is fashionable to be changing. Some students, regardless of what they are doing or what kind of program they are in, "change" furiously, but often, they are the ones who remain basically the same in attitudes and values. For the same reason, we realized that the responses to our attitude and opinion scales were self-conscious as compared to those made when the scales were first developed. Racial intolerance items represented the most obvious example. Tolerance has become an ideology; it is not an expression simply of basic personality dispositions. Thus, changes in scores on our personality measures could not be taken to represent changes in personality, as had been expected when the study first began. Compelling evidence of this was presented by students who scored very low on measures of intolerance

or who expressed tolerant attitudes regarding racial minorities and at the same time expressed extreme intolerance of military men, government officials, college administrators, and other members of "the establishment."

Further, I began to realize, along with my colleagues, that all of our students, regardless of their experiences in college, were experiencing and responding to very compelling events in the world. Those experiences and responses were contributing in a major way to the changes in their attitudes. Our conception of their life-space as being one or another academic program on the college campus had been far too limited.

All of these observations emerged into our awareness a little at a time as the study progressed and led to changes in our thinking about research and in the execution of this particular study. The study had begun with a traditional style of design, with the control of three comparison groups and before-after measures in what were assumed to be two different and relatively uniform environmental conditions. The first interviews were also of the traditional kind: an interview schedule was carefully prepared ahead of time and required the interviewer to ask certain questions regardless of what else the student might want to discuss. What he wanted to discuss was asked him at the end of the series of topics which we thought represented what was of importance in the student's life. Our interviews gradually changed to a more naturalistic sort. Although we reviewed very carefully our knowledge and observations of college life and of the particular student to be interviewed, we kept our questions in the back of our minds and deliberately refrained from asking them. Instead we encouraged the student to talk about whatever was interesting him at that time. Also, instead of avoiding our "effect" on the interview, we often tried to have an effect. By stating our own views on some matter being discussed, we could observe how our student might react to a different point of view, to an observation about himself previously not considered or simply to an interested participant observer of a different age and generation.

As the end of the study was nearing, our original questions and some of our means of getting some answers to them seemed anachronistic and inappropriate. Instead of the final assessment that had been planned--by means of another administration of the personality scales we had begun with--we attempted to engage the students in a spontaneous assessment of their own. The students were asked to come in to discuss the study with us. Discussions were held in groups of from four to six students meeting with a member of the research staff. The groups were made up according to available time of the students and, therefore, included students from any of the three research groups, mixed randomly. At the beginning of the hour and a half meeting they were asked to state their participation in the study and their understanding of what the study was about. After it had become clear to all what the general purpose and format of the study had been, the students present were asked to write their predictions of what the

results of the study were. The rest of the time was devoted to the discussion that emerged. The discussions were taped for later more careful study. We now saw the students not just as passive subjects of our study but as participating actively in it, and we made another change. We paid them for their time in the meetings.

The change in the final assessment was not undertaken lightly. It violated the pattern of the research design; it would not be possible to make a before-and-after comparison in terms of the same measures. It would have been simpler to conclude the study as was originally intended, and to plan to change any future studies undertaken. However, in terms of the changes that had taken place in us as a result of our research observations, we could not repeat those measures. First, because we knew that the original conception of two different conditions was too simple. There are as many Universities of California, Berkeley, as there are students in it; and student perceptions of the University--or any program--change from one year to the next. Second, because we knew many of our measures were often responded to in terms of ideology and not personality disposition. Most important was our impression--from observing individual students in interviews and, for that matter, ourselves in the process of this study--that change does not take place in a linear form, as the use of the before-after measure assumed. Change seemed to appear more nearly in a circular or spiral form which, in the linear perspective, may be seen as an ebb and flow with, perhaps, in the long run an over-all progression. And finally, it seemed doubtful that the changes we observed in students could be related to educational structure; that is, the structure is too diffuse and there are too many other events that are important in the students' lives and that overlap with the educational experiences.

In brief, the study made us seriously question our instruments. We started with a conception of change and ended with a question of whether that conception is valid; whether it is possible to measure change in any meaningful way and whether it is possible to measure the relationship between change and any particular educational experience. These questions became so compelling as to lead us to change our conceptions and try new kinds of observations. Our new task, of evaluating our discussions with the students, was not an easy one. But at least it made sense to be doing it.

Sir Peter Medawar, Nobel research biologist, has said, "Good scientific method must provide for the origin and prevalence of error; a good deal of a scientist's time is spent in being mistaken." Clearly this applies to research psychologists as well. It is in recognizing how we are mistaken that we may make the process of investigation more fruitful.

VII

PERSONALIZATION OF THE EDUCATIONAL EXPERIENCE

The basic intention of the Experimental College Program was to provide 1) a completely required and faculty determined curriculum, which would give the student knowledge he could use as a tool in his subsequent academic and personal life; 2) a sufficiently long period of time for the student to be free from pressures toward premature commitment to specialization and professionalism; 3) an educational structure in which to learn to reflect, to judge, to understand, to enlighten action. The whole process of the program was to be facilitated by the same group of students remaining in close working contact with the same faculty for two years.

There is a major advantage in such an arrangement: the uniqueness of the student can be apparent to the teacher. The teacher can know and respond to the student as an individual and facilitate the development of his basic skills, his knowledge and his growth as a student and as a person. This did in fact happen for many of the students in their association and work with individual faculty members. Because, however, of the vicissitudes of the first trial of the program, because of changes in faculty and TA's, it did not happen as frequently or as ideally as had been hoped. Nevertheless, these students did have a highly personal experience in their first two years of college--a rare event, if it exists at all in the usual lower division program.

There were two aspects to this personalization of their experiences in college: they undoubtedly had a sense of being special because of their membership in the ECP; they did have a long and close personal contact with the faculty and with the TA's.

Specialness

We had wondered whether there would be a "hot-house" atmosphere in the ECP; the students as a group might be identified as special by the rest of the college community. A sense of specialness did exist for many of them, but not for all, and it was not as apparent at the time as had been anticipated. Retrospectively, it is possible to see some effects of this. That such a sense of specialness was mentioned only occasionally may be because the students in the ECP already had a sense of being special. Many of them had highly individualized identities, as we described in an earlier part of this report (see Chapter I). Furthermore, the experience in the ECP was not comparable to any other.

In the group discussion at the end of the fourth year the students in the regular college program made it clear that they were very aware of the ECP students with whom they lived or dealt in any way. Most usually the awareness focused on the relative work load, the ECP

student being perceived as having very little demand placed on him. For example, he was free to read a book intensively over several weeks or have ample time to write a paper or to enter into other activities, whereas the student in the regular program was pressed to study several books or write several papers in the same period of time and had to be prepared for quizzes and examinations. In some instances regular program students did not know any ECP students directly, but had heard of them and of the different sort of academic life they were experiencing.

So, it was evident that ECP students were seen as special. It is impossible to conceive of the students themselves not having a sense of specialness whether they were overtly aware of it or not. Many of them were aware of it and as a mark of their specialness they wore one of the sweatshirts lettered, "Joe's College," thus making their specialness perfectly clear.

There was other evidence of their being special and of being a group distinct from the rest of the college. All of them had been asked to participate in this study by answering a lengthy questionnaire and all but five did do so. About a fifth of them were also being interviewed each semester. Obviously, they were a special group, because they were being studied. During the group discussions at the end of the fourth year students from both the ECP and the regular programs expressed the idea that the study was of the "Tussman College." In short the focus of interest was felt to be on the ECP students, who were an identifiable group, and not on the students scattered through the rest of the University.

During the first year of the ECP the participant observer for the study attended the weekly college-wide meeting and discussion, sat in on seminars regularly, participated in the evening programs, and met with the faculty in most of their regular meetings. In the process he became personally acquainted with a number of the students. In the second year his participation continued on a less frequent basis. Because he was in evidence regularly, but not all of the time, he was easily perceived by the students. Because his regular identity was that of director of the Psychiatric Department of the Student Health Service, the students were naturally curious about him. Although he was not identified by them as the participant observer for the study, but rather as consultant to the faculty, his interest in the students was clear and many responded with an interest in him. By some he was regarded as the resident psychiatrist to the ECP. What greater mark of specialness can there be?

This general background of a sense of specialness was undoubtedly reinforced by the unique opportunity of being able to know the teachers in a day to day experience. No other undergraduate students on campus had such an opportunity. Most of the ECP students had, or could have had, nearly daily contact with each other, with the faculty, and, in the first year, with the TA's. To a group of bright freshmen, eager for new experiences, such an exposure must have been very engaging. Not all of them, of course, had the full exposure, but it was available.

Personalization of Experience

In large classes students have less opportunity to deal with their teachers. They rarely get to know an admired adult. Their general experience in college is apt to be with officials whom they do not perceive as persons but rather, in terms of the problem which lies within that official's province.

Of course, students, for the most part, are not looking for intimate relationships with the faculty. One of the criticisms of colleges in recent years has been that the faculty is impersonal, distant, and unavailable. To some extent that is true, whether it be the personal predilection of the individual teacher, or because of preoccupation with scholarship, research, or publishing. It is also true that the young person is at a point in his life when he is attempting to sever his attachments to adults--especially in his family. Professors who are interested in teaching and in students and who do hold regular office hours often find that students don't come in. In this sense, many students may welcome the anonymity of the large class and the "distant" teacher, even while complaining loudly about both.

Experience with TA's

In the first year they had the opportunity to know the TA's, a group of students who themselves, not long before, had been freshmen in college. The TA's, like the faculty, were vital, interested, and intelligent people who presented clearly identifiable, highly visible models. In some instances they proved to be leaders encouraging the younger students to try new ways of life. Of course, that included a great deal more than academic life.

That this personal experience was very meaningful to the students is evident in a variety of events. Some of these events differentiate the ECP students from those who volunteered for the ECP but did not get in. Since the two groups were identical in most respects at the outset, but engaged in different behaviors, the difference seems clearly related to the ECP experience.

The period was the time immediately after FSM, when new ways for students were emerging. In addition to the questioning of educational structure, other institutions were being changed. The costume and grooming of students was altering radically during that first year or two, and some of the TA's led the way. Long hair, beards, bare feet, head bands, and beads made their appearance more and more among the students. There were also some changes in style of living. Several of the TA's in the ECP were known to be sharing their living quarters with a student of the opposite sex and thus set a pattern that expanded rapidly throughout the college population during the subsequent four years. Many of the students, under observation in our study, were sharing living quarters with students of the opposite sex, some with one partner, some with a mixed group. Students in both educational

programs began such arrangements early, some even in the freshman year. In the senior year, the ECP students were sharing their quarters with the opposite sex in significantly greater proportions than students who were in the regular program during the first two years ($p < .01$).

Use of drugs

With the entrance of this freshman class into college, the experimentation with drugs by college students generally had begun to accelerate. In the ECP some of the graduate students TA's were actively interested in experimenting with drug-induced changes in states of consciousness. Their interest aroused the interest of the young students in the program. Not that drugs were a part of the ECP. They were not. Just as with any interest that might engage the faculty, and especially because the TA's were closer in age and more visible and available than the faculty, the younger students heard about it, talked about it, and were engaged by it. Gossip that a son of one faculty member had been arrested for possession of drugs no doubt added a personal dimension to their interest.

In the first freshman semester, by the end of the third month, this interest had burgeoned so much that some of the staff--even some of those TA's who favored experimentation--became concerned that drugs might sweep through the student body and would ruin the college, either in actual functioning or at least by reputation. Some of the TA's and student leaders proposed a secret cadre to instruct the students on ways to avoid being caught. The participant observer deflected this plan into an evening meeting devoted to a discussion of drugs. To set the theme of the discussion and to express his general view of drug use, he used a quotation from Kafka: "a person may choose not to suffer; that may be the only choice he is given to make."

The discussion ranged between such extreme ideas as, "The Army is stockpiling LSD to give to the Russians so that the Army can take over their country," and "If I were the Mayor of Berkeley, I'd set up tables to give out LSD--our problems would disappear."

Just as there were large individual differences among the students, so there were among the TA's. Two were very interested in the use of drugs, and, directly or by example, encouraged experimentation by the students. On the other hand, three were very much opposed to such activity. They were supported by the program secretary, herself a recent graduate at the MA level and also a personal model of some influence with the students.

That the close personal contact experienced in the ECP had its effect on attitudes is reflected in what the students told us about experimenting with drugs. Toward the end of their first semester on campus we asked them individually about their feelings and their attitudes about trying drugs and inquired whether they had had some experiences themselves or knew of experiences indirectly through friends

or classmates. In this context a significantly larger proportion of men and women in the ECP than in the regular program told us they had tried using LSD (18 per cent to 5 per cent) and marijuana (27 per cent to 13 per cent). Those in the regular program whom we interviewed included the students who had volunteered for the ECP. Therefore, the effect of the close personal contact in the ECP is strongly underscored.

Drugs played another role. Individual students had the experience of suddenly finding themselves outside the law and, therefore, outside of their own society. (The experiences of one student, who was particularly articulate about being able to look at his society from the outside, will be presented in the next chapter.)

At the social level, attitudes about drugs sometimes determined the grouping among ECP students. Three groups formed: those who favored drug use, those who opposed it, and those who--whether they tried it or not--did not take a stand. But the drug issue was more than one of social grouping. Students use the university to differentiate themselves in general, and, in particular, to differentiate themselves from their parents. A year or two earlier FSM issues might have been used to separate students from parents. At this time, drugs had become the point of conflict, and their use by students represented a "badge of courage." A striking instance of this aspect of drug use occurred at a retreat for the students and faculty held at the end of the first year at a quiet place in the country. In the evening a large campfire had been set ablaze, and faculty and students relaxed around it. The drug users had removed themselves from this group and could be heard whooping it up, off in the bushes. The others stayed around the campfire with the faculty, roasting marshmallows and, in some instances, drinking wine. When the faculty went to bed, the students got together and used each other's stimulants, pot or wine. Faculty presence had had an effect on the way each group stated its identity. With the faculty gone, they could merge their efforts; both groups were able to be more open in defining themselves in terms they knew the faculty would not approve.

Experience with Student Health Service

The potential importance of the personalization of experience is demonstrated in still another area of behavior. At the end of the fourth year a study of the records of the Student Health Service showed consistent and marked differences in the amount of use of the service by the ECP students and the other students. The Student Health Service of the University of California at Berkeley includes a variety of clinical services for registered students. The entire service is made up of seventeen out-patient clinics representing various medical specialties, including a Department of Psychiatry, an eighty-bed hospital and a surgery. The use of all these services was significantly greater among the ECP students. Thus 11 per cent of the ECP students and 5 per cent of the other students visited the various medical clinics more than twenty-five times during the four years ($X^2 = 5.05$, df 1, $p < .05$).

These were visits for different problems and did not include return visits for the same illness. During the four years 27 per cent of the ECP students and 18 per cent of the other students (including 19 per cent of the volunteers who were not included in the ECP) had been hospitalized at least one time ($X^2 = 4.34$, df 1, $p < .05$). Finally, the use of the psychiatric clinic was also consistently different. Thirty-four per cent of the ECP students and 22 per cent of the others visited a psychotherapist one or more times ($X^2 = 6.96$, df 1, $p < .01$). Table 13 again makes it clear that the ECP experience differentiated the students who were accepted and those who were in the regular program.

These differences could be understood on the basis of the personalization of the ECP students' experience; they had come to know our participant observer, a member of the staff of the Student Health Service. Behavior is always an integration of a variety of factors, and this behavior--the use of the Health Service--was no exception. That the total number of hospitalizations included psychiatric hospitalization is important. There were a larger number of students in the ECP than in the regular program who were hospitalized for psychiatric reasons and this difference in part contributes to the over-all difference in frequency of hospitalization. Did the ECP experience make it more possible for students to encounter psychological difficulties? We do not think it did. It is true that the ECP was not appropriate to the level of development and integration of some students, and that difficulties could arise from the highly personal contact that a student could experience and the direct influence of that contact. But these were individual matters, not related to the general characteristics of the program.

The ECP was not a group of individuals particularly prone to psychiatric problems. And, there was nothing to suggest that these students were more prone to physical illness which would lead to more hospitalization and more use of the medical clinics. They <u>were</u> characterized by a readiness to explore, interact with, and make use of their environment, perhaps that contributed to their full use of the health service facilities. But their counterparts in the regular program had exhibited similar qualities and did not use the facilities nearly as much. Because students from both the ECP and the regular program who were interviewed for our study had to come to our offices in the student health service hospital for the interviews, they were equal in the amount of exposure to this part of the campus.

There was one major difference, however. The ECP students <u>knew</u> a representative of the Student Health Service. Someone new in a city prefers to go to a physician, an attorney, or a psychotherapist known to a friend or acquaintance rather than to a strange professional found through an impersonal referral agency. So, the ECP students had a personal association with the health service and could come to it more easily.

TABLE 13

Percentage of Students Using Psychiatric Clinic

	Male	Female
ECP	34%	35%
Volunteers not included in ECP	15	21
Students not interested in ECP	26	23

Dropout rate

Personalization of experience may have been important in the college life of the ECP students in another way. It may have contributed to their inclination to remain in school even though many of them were students with attitudes typical of those who withdraw in good standing.

During the two years of the ECP and during the entire four-year period as well, students who participated in the ECP withdrew from school less than the other two groups in our sample. The rates of withdrawal during the entire period were 22.7 per cent for the ECP students, 34.1 per cent for their counterparts and 34 per cent for the students in the regular program who did not volunteer for the ECP ($X^2 = 6.63$, df 2, $p < .05$). The lower rate of withdrawal of the ECP students compared to their counterparts in the regular program again seems clearly related to participation in the program.

We have observed in previous work, and again in studying this group during the first two years, that students in the regular program who score in the highest quartile on the Social Maturity and the Impulse Expression scales, have a higher rate of withdrawal than students in the middle or low ranges of scores. Students in the ECP who scored in the highest quartile are an exception to this finding. Among the students scoring high on the Social Maturity and Impulse Expression scales, only 17 per cent of those in the ECP withdrew whereas 50 per cent of their counterparts withdrew, and 65 per cent of the students who did not volunteer for the ECP withdrew ($X^2 = 6.42$, df 2, $p < .05$).

What could account for this striking relationship to participation in the ECP? The conventional grading system had been abandoned in the ECP. Was it because failure was not possible? Students who left the ECP did so of their own volition, but the proportion of those who left who were considered to be doing failing work was almost identical to the proportion of those who were failing who left the regular program. There were no significant differences in the GPA of the students in the three groups who remained in school. Differences in withdrawal rate were constant during the four years, and in the last two years all the students were graded on their performance.

The fact of the personalization was undoubtedly of importance in reducing withdrawal rate at least during the two years of the ECP and possibly during the entire four-year period. Both the sense of specialness and the more personal experience afforded by the ECP had intrinsic values already discussed and besides could make and did make the academic tasks of more interest and of more impact.

The absence of grades in the ECP did have other consequences, however. While in the program the students were relatively free from pressure and could pursue varied interests of both academic and personal

sorts. Many of them did. Some registered for or audited other courses in the regular program; some became involved in intense personal relationships; and some explored and developed artistic or technical skills by pursuit of a hobby. In this sense they were able to satisfy their larger than usual appetite for variety more than would be possible in the regular lower division program. Some of the students became engaged by the content of the academic program itself. It was intrinsically interesting, and it had a clear relationship to contemporary life. Some of the students continued active thinking about the issues through their senior year.

Experience with teachers

Some of the issues were initiated by and insisted on by Professor Tussman, even in the face of active disagreement from the other faculty members. This itself had an impact on the students. They were able to see in Professor Tussman a person who cared intensely about something and who responded in various ways because of his feelings. They saw him being insistent in presenting the issues, sometimes with great patience, something impatiently. They saw him in despair when he felt his efforts were being subverted by student or faculty interests that tended to divert attention to other matters. They saw him being pleased when students were responsive to his efforts whether it was in agreement or in argument. As is made clear by one of the students in the following discussion it was this visibility of his own character in its various aspects that could make the human affairs in past epochs come to life for the students.

In this excerpt from one of the group discussions at the end of the senior year, only three of the four students present speak. The first to speak is a young man who did not get into the ECP and, just prior to this excerpt, has been trying to learn from the other two who were in it what it was like. The second one to speak is a man (No. 2) and the third (No. 3) a woman student.

1. Would you have found, though, the program to be significantly different or maybe more valuable if instead of it being the Tussman program, it was say the Professor A program or the Professor B program?

2. Oh, well, then it wouldn't have been it. I think it takes that kind of a personality to organize something like that.

1. No. Assuming that, in other words, all I'm saying is, let's say that Tussman was the grand administrator. All right, let's say the program could take place without Tussman as an individual somewhere.

2. You mean that he would be the Chancellor of the program.

1. Yes, Chancellor of the program, aside from the head academic individual. All I'm saying is, what would the Tussman program have been like without Tussman?

2. Somebody ought to run a program like that and find out.

1. Do you think it would be a particular valuable experience? Do you think it would be more valuable?

2. Anything is a valuable experience in that sort of intensity.

3. I learned a lot from Tussman. I mean I disliked his authoritarian bit, but he's sort of a sporadic genius. You really get so that you can feel for the guy, because there are moments when he's really down and then there are moments when he's just brilliant. And it really is a neat thing to learn about a man like Tussman.

2. Yeah, he was a great guy to be around. I got burned up at him, because he'd come out with very irresponsible statements.

1. A very responsible person.

2. Yes, that may be, I don't know. Certainly was a most--The first year the two important characters were Professor A and Tussman. I've had a lot to do with Professor A since then. I haven't had much to do with Tussman. But in some respects, in that instance, Tussman came off as a more, if not more powerful, more memorable character. He wasn't stronger than Professor A, especially in their arguments, also in the contact that you had with him, but he somehow was a more--I thought he was a rounder character than--the personality that showed had more facets.

1. I have known Professor A well. Professor A as an individual, though, is one of these, incredibly sometimes, quiet individuals. You get the idea he's kind of leading you places without ever saying anything, and doesn't really assert himself as an individual.

2. Sometimes gets kind of stale.

3. Well, I thought it was interesting because Tussman considered the program and education to be character development. I mean that was his big thing, character development.

2. It was biggest because it was a mistake.

3. No. To me, Tussman is a character, and he taught us that, I think, about people. Like when we were studying seventeenth century England, one of the major things we had to do was look at, like, Milton or Hobbes, I forget who all of the characters were, and through the personality of that person to understand the age, in other words, what was going on in the time.

1. That now, I won't even say now, that has been for a long time the standard procedure in English departments. Because that's true. You can't understand Plato unless you basically understand his basic set of assumptions and look at what he's saying.

2. Which is really sort of a philosophical--

1. The point is, I've had long arguments with professors on that same level, as whether or not that's even worth doing.

3. Yes, but without BSing about it, because of the character of Tussman, you could grasp something about this other, the whole bit about what was going on.

Professor Tussman's intensity of feeling regarding the program and the students is expressed by another student in another discussion group. He does it with ambivalence but with respect for the man's dedication to a principle.

> "Tussman had this guiding idea behind the Tussman program. This was his, you know--I don't know what--like your magnum opus or something. And in some respects, I think it's good what he made us do, the way he made us read certain things and conform to his idea. I don't think it worked out as successfully probably as he, you know, had envisaged. You remember--I don't remember whether he told this in lecture or what--but he was talking about when Meiklejohn had his experiment at Wisconsin, and Meiklejohn said that he wanted, if the kids in his college--as I recall they lived together--they were all boys and they lived together--if they were awakened in the middle of the night and there was a fire, he said he wanted the first thing for them to say when the person said, 'Who are you?'--you know, when they woke him up--he wanted the student to reply, 'I'm a member of the experimental college.' And I had the impression that Tussman said that, you know, that was what he had in mind and obviously it didn't work. We were all just too, too much individuals. It never could have worked with that group, because the whole reason we were in there was because we didn't want to be in, you know, this rigid group business. But, in some senses, I think, you know, Tussman was right. If he had turned me loose and said, 'All right, say whatever you want to,' I just wasn't ready for that yet."

Of course, the different teachers engaged student curiosity in different ways. Professor Tussman--repetitive and even dogmatic about his principles and views about authority and responsibility--impressed students with the strength of his convictions. Students grew tired of the issues themselves at times, but were attracted to the feelings behind the issues. One of the other teachers aroused their attention by a very different kind of quality. He appeared never to take an absolute

position, but instead always seemed to be opening up new possibilities, giving a sense of leading the student to consider new ideas but never coming to an end.

In their senior year the students were asked to indicate--for each academic year--any professor who stood out in their experiences at Berkeley. Of the total of eight teachers in the ECP, three account for 83 per cent of the choices made by the ECP students during the time they were in the program. The choices are roughly divided among the three. From our observations and student reports we know that these three accounted for the majority of tension and the interaction among faculty. One, of course, is Professor Tussman. The second joined the program faculty for only the first year and was interested in discovering and learning rather than in establishing the truth. At the beginning of the program, when each faculty member was to speak to the entire college assembly about his favorite passage in the Iliad, he stated: "No matter where you cut it, if the work is alive you draw blood. I am not interested in favorite content, but in process. I don't have a favorite passage; it may be different every day." It was his proposal to read Hobbes as literature (rather than deciding whether Hobbes is right or wrong) that led to the most severe crisis in the ECP during the first year. The students were acutely aware of the conflict. Many were attracted by this man and stimulated to produce unusual work both in the ECP and in the regular program where they later sought out his courses.

The third faculty member also conflicted with some of Professor Tussman's basic points of view, but in a different way. His predilection was to encourage the students to question everything, to emphasize the relativity of things, and to analyze them logically. Their conflict and interactions prevailed primarily during the second year of the program.

The dynamic interactions of these three men were very meaningful to the students. Their response wasn't always favorable, but even when it was negative or fearful, it was strong. In the following group discussion, two of the five students present were discussing their experiences in the program. The first young woman to speak is referring to Professor Tussman:

1. But I just don't think he's a very nice person. And I guess that, you know, that coloured my whole opinion of the program. And I know that I'm not the only one who feels that way.

2. Right.

Group Leader: What's nice? What's a nice person?

1. A Professor A or a Professor B.

2. Well, I've, well, finally about the whole program--I mean, I don't even absolve those two men. I think that what the program was about was--it's sort of like, these naive little kids came to Berkeley, and they put up--I mean, it was like the Olympian pantheon. It was just, you know, these great gods were sitting there giving the word, and we were supposed to believe it all and take it all in and deal with it on their level. And they were just--

1. No, I don't think Professor B said that at all. Professor B's main point was to question everything you were told, never to accept anything blindly, but--

2. Except him.

1. No, I--

2. Well.

Group Leader: Go ahead.

1. But you're right in Tussman's case.

2. Well, I think it was true of all of them. I mean, they all came on in a different way. I mean, Professor A was a storyteller. He told wonderful stories. And by the time he got through, your mind was blank and you said, 'Say, that's really great. Where'd you think of that?' But you had nothing to say. I mean, you felt like there was nothing that you could possibly add, because here was this experienced, wise man who could tell stories, and they were interesting. And Professor B, the thing that he did, that I found absolutely impossible, was he was so rational, that he would pursue something to its logical absurdity, and he would turn life into this, you know, it was like an equation. And life isn't like that. He couldn't accept anything that was irrational. You would have to pursue it in a logical way. And unless you said, 'Yes, you're right,'then the conversation just, you know, it went on, dragged on for hours, and it was just, didn't mean anything. And the thing was, is that, I mean, well, more than any class I've ever been in since, or before, it was like, there was the person who spoke and you sat and listened to them, because they knew, or something like that. I don't know. I don't know why it was like that. But I've never experienced that--

The group discussions of the students in their senior year made it evident that the students were attentive to their teachers. They were especially alert to a teacher's willingness to state the truth as he saw it, to express his standards, and to insist on them. They were aware of a teacher's moral courage to disagree publicly with others when he felt it necessary to support his view of things. What the teacher is trying to do through his curriculum he may accomplish as well through the dignity and integrity of his own person.

The students in the ECP could observe the day-by-day and week-by-week collaboration, conflicts, and efforts at resolution going on between members of the faculty and between faculty and TA's. By virtue of the weekly college meeting and the bi-weekly seminars with one professor during an entire semester, they had an unusual opportunity to observe that one professor. They could see him as a teacher, an academician, and scholar, competent in his field and in teaching. They could see him in immediate juxtaposition with his colleagues, where contrasts might be sharply drawn. They could see him as a person, a man with foibles, weaknesses, blind spots, and special virtues. They could know about the personal life of the faculty members; which ones were married, who had children, who played what sports, who was having personal difficulties. All kinds of information was available both by direct experience and by grapevine.

An immediate effect of the exposure to different styles and to disagreements among the faculty was to make the content of study--the ideas being considered by the Program--obviously a relative matter. The direct experience of different points of view, strongly held, no doubt underscored the complexity of the concepts and ideas considered. Furthermore the exposure to an intimate view of a teacher provides opportunity to examine personal qualities that may become admired and identified with. Such exposure may result in a good deal more than we are able to discern even in our own personal experience; even then we may not be aware what use we have made of such an exposure until some later time in our lives. But if it results in nothing more, it will reveal the teacher as a human being who, as one student put it, "doesn't eat PhD, doesn't have a PhD refrigerator, and whose garden doesn't have all the names engraved in Latin." He had learned that it wasn't the PhD that made his teacher wise; it was what he had experienced as a person, his ability to live life.

This, of course, is an idealized statement of what may be possible in a highly personalized experience such as existed for some in the experimental program. We can point to some students for whom it was a good experience. But the contrary is also true. We will cite two different instances of a bad experience in the sense that it probably impeded the student's development in some way.

A young woman was engaged--as young people around this age so often are--in the process of establishing herself as an independent person. She was from a middle-class family living in a large metropolitan area. Her father was a professional man. In an interview, she described her family in this way: "Father is a liberal but has fixed ideas. Sort of a strong person around the household. Mother is not well educated (one year college). She plays bridge, gets her hair done. She doesn't have much to stand on. Always agrees with father. Has middle class attitudes. If there is anything important I want to discuss with them I have to wait till Father comes home. I'm more close to Father maybe."

She described family relationships that suggested a prevailing stiffness and stickiness and little comfort or pleasure at home for anyone. Everyone took himself seriously, it would appear, and the parents were possessive, held the reins tightly. She used to have a lot of trouble with her parents. They would argue about stupid things she was supposed to be doing like not talking too long on the phone. Their arguments had become less, but they still felt her views to be wrong. At that time her parents were upset about her brother who got bad grades in the tenth grade; he had joined peace groups, wouldn't cut his hair, went barefooted, and was suspended from school. Apparently he took a position extremely removed from his family ideals for him.

She "liked pretty much everything the first year. The first time I was away from home I was pretty happy, although I hated the dorms." She was not an attractive young woman. She was round of face and body and carried a burden of too many pounds. In her first interview she was perceived as lonely and depressed. She appeared not to think about her own unhappy state but instead to devote much concern to the unhappy state of the world and the society she lived in. Some of her personal feelings about her family were no doubt reflected in the intensity of her statement: "I have always hated the American system and all its injustices."

It was difficult for her to make friends. In high school she had "my own close little group," but did not do much except go to school and read. She did engage in political activity in her community, however. A year and a half into college--in spite of meeting different kinds of people in the program--she had not made friends. She described herself as quiet and shy around new people.

It is easy to see that she was a young person who felt very much attached to and involved with her family. She wanted to be able to please them but could not. "I cannot be a solid, stable, unchanging, faithful individual, as my parents seem to wish me to be." She was having difficulty separating herself from them. The process was made more difficult by their possessiveness and by her own fear of entering into new relationships. She found no satisfaction in relation to her family nor with her peers. She was shy, lonesome, longing for some kind of life. She took on the problems of society--especially American society--as her special burden. She had devoted time and energy to political campaigning, and probably gained a sense of identity and belonging in the process. But by the time she came to Berkeley she had become discouraged by it and did not participate even in a very popular "people's candidate" campaign that year.

In the experimental program she tended to be one of the invisible ones. Her papers in the first year were conventional in content and style, perhaps naive. She was regarded, however, as a very intelligent, serious student. In her second year she became interested in a teacher who himself had a special interest in political activity. Papers

written to this professor had notes attached addressed to him and containing personal observations about how she felt about the assignment, about writing the paper, etc. One early note had a postscript: "I think I would like to talk to you on a personal level sometime." One of her last papers incorporated these personal messages so that, in effect, the whole paper appeared as a personal message between herself and her teacher. There seems little doubt that she regarded his as a sympathetic ear.

He did talk with her at some length especially about various political philosophies including the liberal and left spectrum that interested them. His comments about her gave no indication of a special interest. In his evaluation he said, "I am sure she will develop in time--she should become a first-rate student." Apparently his interest was in her political interests and not so much in her as an individual. Nevertheless she felt "turned on" by the attention.

She said, "In two quarters, without even trying, in fact, probably without even knowing it, he regenerated (sic) more political consciousness in me than I'd ever had." She began reading avidly outside the program, reviving a former interest in socialist philosophy. She became active in the spring Mobilization against the Vietnam War and in the strike on campus. She met people from groups holding to various socialist doctrines. One young man took an interest and gave her readings and took her to lectures sponsored by his group.

In one of her discussions of her interests her teacher apparently responded to her expression of loneliness by suggesting she might combine her interests by becoming a member of one of these political organizations and perhaps then she would find a group of friends like herself and would not feel so much alone. The idea touched the essence of what troubled her. It offered a way of defining herself as clearly different and separate from her family and at the same time gaining some companionship. She joined.

Her parents were very disappointed with her and insisted she must come back home for the summer. She became involved with the young man who had introduced her to activities in his group. He, several years her senior, was engaged in protest activity, did not work for a living nor go to school, and tended to live a nomadic life. She was impressed by his interest in her and found it hard not to respond. His style of life was completely different from anything she knew--she was attracted by his attention but fearful of his way of life. Her family forbade her to see him. During her third year she kept him and her political activity a secret from her parents. They literally bribed her, with a gift of a car, to maintain their values.

At the end of the final year she was depressed and unhappy and "things are not going well." She had left her boyfriend, partly because of his physical abuse of her but mainly because he represented too radical a change in life style even for her. She had withdrawn

from the political activity and the group she belonged to. Apparently they too were too extreme and provided only temporary surcease from her social isolation. She was disillusioned and had no interest in anything, was distressed about graduating and had no idea what she would do. She would have liked to go to a psychotherapist about her problems but stated that, because of her father's disapproval, she could not bring herself to take that step.

In regard to the task of making herself an independent person, she was about where she was four years before. The encouragement given her by her teacher may not have taken into account the significance to her of their relationship. Unfortunately the encouragement urged her into taking a position so extreme that it was intolerable not only to her family but to herself as well. It made her difficult task even more difficult and she retreated from it.

A young man of considerable talent had an experience of a different sort. It too can be seen as contributing little, and possibly even adding complications, to his developmental task. His experience can be described more briefly. It centered around the fact that his talent in thinking and expressing himself impressed people very easily and very favorably, and as a result he did not have to do much to gain a regard that other students might have had to work very hard to achieve. The teacher with whom he had a close personal relationship in the program was one who inspired him to some of his best work. This teacher had special regard for the autonomy of the individual. He always stated his point of view openly and clearly but never held that it was the truth or had general validity or had to be accepted by his students. He was sure each student had <u>his</u> opinion. He was interested in knowing what that opinion was and in encouraging the student to develop it. Similarly, in respect to a student's work, he stated clearly his view of the quality of the work and of its shortcomings. He would suggest what a student might need in order to improve his work, but he eschewed requiring a student to perform in a particular way. His first impression of this student was characteristic: "Possesses some of the most important qualities of the writer . . . he will need practice writing. Promise: brilliant. Prescription: write, Write, WRITE." The evaluation prepared by this teacher and his TA at the end of the first semester and given to the student, had similar qualities. "We know that when . . . begins to hit on all cylinders, he will be a tremendously dynamic thinker, writer, and possibly actor. At present, however, there is a certain tentativeness which manifests itself in having his papers halt just short of where, by the logic of things, they should go."

At the end of the second year of the program a different teacher wrote the evaluation. "An obviously bright and energetic boy who writes well and has ideas. Paper somewhat disappointing, probably because he didn't spend much time on it. The most interesting student I had this quarter."

Clearly no one had made any demands on this student, demands that might have led him to experience his real power and his capacity to decide when and how to use it.

In his intellectual biography at the end of the program he mused about the problem of producing good writing. He observed that he had not written as well since his first paper for a teacher in the program by whom he clearly felt inspired. He asked himself whether he should have gone on writing good papers, "or it is natural to perform best under optimum condition which occur sporadically?" He concluded that he lacked the device of "tuning in" to a subject so as to produce a good paper without the optimum conditions. In other words, he felt he could not write a good paper when he wanted to.

After the program he continued in the regular upper division at Berkeley, showing great ingenuity and imaginativeness in his work and in the development of his own educational program. He was able to use the regular program in such a way as to give himself opportunity for a thorough involvement in areas of study he was especially interested in and yet managed not to jeopardize his academic standing. In essence he was able to devote all his attention to one course and yet not fail the others he was carrying. In this regard he demonstrated very well that the education in a large institution need not be routine prerequisites, requirements, and major specialization. With a little work, the educational program can be used flexibly.

At the end of the senior year, however, he was still pursuing the same question with which he had come to the University four years before. Simply put, it was, "Do I <u>have</u> to?" In his senior year he enrolled for independent study with the professor he had first known in the program and with whom he had continued to have a close personal relationship. As is customary he came and discussed what he was doing, thinking, working on. But he did not turn in any work. He came to expect that he wouldn't have to turn in any work but would simply be given a pass or a passing grade. He was quite astonished to learn that he had not graduated because in this course his work was graded as incomplete. It seems significant that he chose his favorite teacher--whom he liked and felt he could trust--for this eleventh hour effort, at the University, to find himself. At 12:01 his trusted friend did say, "You <u>have</u> to (and you <u>can</u>)."

In considering experiences like these, it is apparent that close personal associations make it possible for the faculty to perceive the student's problems and dilemmas and to respond appropriately to him, but even under the best circumstances it does not always happen that they do.

We have to conclude that the personalization of the experience in the ECP generated a different view of the University and a different response to it, especially to segments of it made more alive by a personal contact. As a result the general rate of dropout was

lower than usual. Furthermore, the vital, talented, and independent students who are the most likely to drop out and seek experiences elsewhere, apparently had a more meaningful experience in the ECP, which made it possible for them to remain at the University. (Ordinarily they do seem compelled to leave by their own personal qualities.) The unusual use of the Health Service was also a consequence of its becoming a living entity by virtue of the students' personal acquaintance with one of the staff.

Specific relationships that students developed with various members of the faculty often continued through the student's stay at the University. Such relationships provided a personal continuity for the student (and the teacher as well) and in instances such as the one cited provided an opportunity to deal with problems that are central to the student's full development.

Finally, we can see that some of the students we interviewed, in the ECP and in the regular program as well, developed a more meaningful relationship to the University through their contacts with us. Even though we were not identified by the students as part of the University and our contacts with students were brief and relatively formal, a few of them made it clear that it was a special experience for them which provided a focus in their college life that they did not otherwise encounter. Two heads can be better than one.

VIII

PATTERNS OF DEVELOPMENT DURING COLLEGE

Action brings change. The process of acting, of experiencing and dealing with objects--both physical and symbolic--makes possible (under certain circumstances) a greater knowledge of oneself and of the world. New meanings, new cause-and-effect relationships, and new ways of behaving can emerge. An expanding repertory of experiences, of ways of behaving and acting, is most likely to occur in circumstances where an individual with some predisposition to change encounters a new situation which challenges him to behave in some new way. If the challenge is too great, however, or if the difference between the accustomed way and the new way is too great, there may be intensification of the accustomed way of behaving rather than an innovative response.

We observed change in ourselves as well as in our students. We realized that we had been assuming stability and unity where it did not exist. We had assumed unity 1) in defining the two educational atmospheres, 2) in deciding--by our choice of personality measures--the aspects of personality in which everyone would change, and 3) in comparing our measures at two points in time. We had assumed that personality change is linear, as though such change were comparable to the physical change that occurs by going on a diet and measuring oneself on the scales before and after. As a result we attempted to redefine some questions and procedures (Chapter VI). We also realized that our focus on the students in the two educational atmospheres on the Berkeley campus for a period of four years had assumed a relative stability of the social milieu in which the University student exists: it was far from stable (Chapter V). Some accounting of social and cultural changes seemed important.

Effects of Cultural Change

As the study proceeded it was evident that the rapidly accelerating rate of change of the society in the context of which the study was being done was of profound importance. It affected our subjects, ourselves, and our study. Nothing, it seemed, was standing still. In an earlier part of this report (Chapter V) we demonstrated that the students who entered the University in 1965 were very different, in their response to our questionnaire, from those who entered in 1961. The students who entered in 1961 changed significantly, and by the time of their graduation in 1965 they had, according to our scales, achieved a much more complex level of development. But our evaluation also shows that the students who came to the University as freshmen in 1965 had also achieved the same level of developmental complexity as the graduating seniors.

Rapid cultural change is a fact dramatically emphasized on the front pages of our daily newspapers. In the period of the four years of the study, there were two assassinations of prominent Americans--Martin Luther King and Robert Kennedy; the Vietnam war moved from a "technical advisor" level to 500,000 combat troops with 40,000 casualties; Watts and other ghetto communities imploded. In addition, on this campus at least half a dozen major crises took place, crises that paralyzed the regular activities of the campus community for days at a time and often involved violence by young people and by authorities. These events inevitably affect social institutions; the frequency of their occurrence gives them a compelling quality that cannot be ignored.

Dramatic events representing social change had taken place in the world during the fifties as well. The Korean War, the McCarthy era, and the loyalty oath controversy on this campus were prominent among them. Yet students in the fifties seemed uninterested and unaffected by them. Exposure wasn't enough. The young people coming to college in this decade increasingly feel a need for participation. Involvement has become an ideal.

We can speculate about reasons for the greater involvement of the students in our sample in the events of their world. They were born right after the Bomb, when a problematic future urged humans to focus more strongly on the immediate present; there developed a general atmosphere of immediacy, of action, a rejection of the old way of waiting for future accomplishment and satisfaction. They grew up, for the most part, in a society and in an era of material exuberance, in which few individuals in the classes that customarily go to college experienced any deprivation; in that sense, then, they had no need to focus on survival but had latitude to experience other involvements. They were raised under the aegis of child rearing attitudes symbolized by Dr. Spock. They were free, and were encouraged to experience themselves in their environment. There were over-reactions to Dr. Spock's ideas: if they wanted to write on the wall with their crayon, walls were made easily washable so children could have what was assumed to be the experience of personal expression and creativity. Rather than "being seen and not heard," they were urged to express their thoughts and feelings and were given equal status with the adults in the "family conference." Action and engagement were encouraged. These circumstances could have many consequences but increase of active involvement certainly seems to be one of them.

Even though the gloomy atmosphere of the Cold War prevailed as they were growing up during the fifties, their society gave expression in a number of new ways to a regard for individual human rights and values. The Supreme Court decision on desegragation was made as they were still in grammar school. By the time they were entering high school black students in the South were implementing their view of the decision by boycotting movie houses and sitting-in in restaurants. The Peace Corps came into being and offered what seemed to be a new way of helping less privileged people improve their lives; it

was an activity the students themselves could consider going into after high school. The idea of Medicare was coming to fruition as they were starting college.

If by chance they lived a nonpolitical, nonsocially aware life and engaged, instead, in a playful adolescence, in California they learned to surf; they learned to ride in front of the most turbulent part of the wave as it approached the land. They could stand on top of change and conquer it by means of their direct physical involvement with it. Both those interested in change in this form and those interested in social change, by the time they were in senior high school, were listening to Bob Dylan. Dylan was beginning his period of dramatic portrayal of social issues that were to be protested and that were to be changed; the answers to social injustice were "Blowin' in the wind." In 1965, his were the most sought-after records in the record shops around the University.

Finally, as a kind of exclamation point, on the eve of the juvenile period of the lives of these students, Medgar Evers and John Kennedy were assassinated.

Our observations suggest that these young men and women were relatively more involved with their community than students had been previously. Sanford (1967), describing data from the study by Katz, concludes, ". . . in 1965 most of the seniors were apathetic about political issues." He adds, "When these same students were asked to list the organizations and clubs that had been most important to them during their college years, very small proportions (never more than 10 per cent) listed groups for civil rights or for other political study or action."

The students in our study, who were on campus during the four years following those of which Sanford wrote, indicated a very different state of affairs. When asked to list all activities other than academic ones, 65 per cent of the men and 83 per cent of the women included active participation in one or more community or political activity. These were conventional political activities on campus and in the community, as well as participation in organizing protests such as the Spring Mobilization, demonstrations and strikes on campus. Community activities included volunteer work in ghetto schools and playgrounds, in half-way houses, in draft counseling centers, and the like. Paid community work was not counted in our summary of these activities. (In light of such involvement, it was interesting that in our group discussions many students expressed feelings of helplessness about being able to change anything in the world.)

In our group discussions at the end of the senior year, we observed that the idea of contributing to the welfare of the community was emerging as an ethic that was strongly held by many of our students. When we had been engaged in interviewing the Berkeley students in the Katz study (1967), we had been impressed by the prevailing

interest in their own future well-being and private achievements and satisfactions. Such emphasis on privatism--and the apparent lack of interest in public affairs--on the part of students in the fifties and early sixties, has been well described by many previous studies (Feldman and Newcomb, 1969).

The students in our study, in thinking about plans for the future and in deciding on their work or their career, frequently considered the question, "how will this activity, this kind of work, contribute to the betterment of the community?" "Community" referred to their city, their subculture, the United States, or sometimes the world. Whether this question was implicit or explicit in their thinking, it seemed to be a natural, taken-for-granted aspect of considering one's plans. Significantly, it was a component of the thinking of individuals with widely differing future plans: practice of law, academic scholarship, biological research, teaching, exploring revolutionary new ways of living. It is interesting to note, parenthetically, that the drug use engaged in by students had become, to a large extent, a communal or social experience: LSD was typically taken with another person present as a "guide" for the trip, whereas a marijuana "joint" was characteristically shared among all those present.

In the course of our study we began to realize that 1) rapid cultural change was taking place during our students' most intense developmental period, 2) as a partial consequence of this change they appeared to have a greater capacity for involvement in the events and changes in their world, 3) their awareness of changing values and their adoption of new values appeared to be accelerated over that of the generations that had arrived in college four years before, and 4) contributing to community betterment was becoming one such value.

Attitudes Regarding Education

Another example of changing values is to be found in students' attitudes about education. In the fifties it was still an accepted concept that a college degree and an education were synonomous. In the early sixties this concept of a college education began to be challenged by some of the more questioning students, and the challenge burgeoned into a major issue in higher education. Many students in college began to feel that they could do one or the other: get an education or work for a degree. Our data would suggest that the potential college students, still in high school, had already become aware of the issue and held some view of it well before they arrived in college.

In the late fifties the common complaint college students made about their courses was that "there is too much work." By the middle sixties the complaint was changed. Then it was common to complain that the work is "irrelevant." It was as though the student had developed a greater independence and self-confidence and was saying, "I can do the work but I am not sure I want to." Again, it would

appear that our 1965 freshmen arrived with such attitudes already incorporated in their thinking.

Complaining was a general characteristic of these students. They complained about many aspects of their society and of their lives. We found complaining to be so prevalent, that we have wondered if it might have represented an unusually intense effort on the part of these young people to differentiate themselves from the older generation, which had tried so hard not to differentiate children from adults while they were growing up. The rejection of "everyone over thirty" seems the most general expression of such efforts.

Complaining about the academic experience is almost a requirement among students of this era. Their almost universal, stereotypical response when asked about their four years of college is that it was largely a waste of time; it was irrelevant; it prevented them from thinking and from reading anything in depth, and it contributed nothing to their personal or intellectual growth, which they attended to, they claimed, elsewhere. In general discussions, however, the same students almost as consistently remarked on experiences with teachers or in courses which, in their words, "turned them on." In the senior year questionnaire we asked them to indicate outstanding experiences of that kind. There were virtually no bad experiences reported. Eighty per cent reported good experiences with from one to five teachers and one to five (separate) courses during the four years. In other words, the bulk of them had enough outstanding experiences in college to average about one per semester! That seems an unusually fine record for any educational institution, but particularly for one of this size.

Changing Attitudes and Personality Measures

Cultural change raised some serious questions about our study. The Impulse Expression scale, one of the scales that we used to measure personality change, was developed fifteen years ago. Psychologists, developing methods for studying college students, considered expression of impulse of value in the psychological makeup of the average student. He was seen as arriving at college a rather inhibited, docile, conventional fellow, for the most part not in tune with his fantasy, imagination, or feelings. It was assumed that, in his development toward a more complex and well-integrated person, that he would become aware, during the college years, of these resources in himself and make them a part of his functioning. Hence the IE scale was designed to measure this developmental change. Today the idea of expression of impulses has become reified in many forms and is regarded as good by most young people and many older ones; it has become a recognized social value and is often pursued with a vengeance. Those who are unable to accomplish this valued behavior feel guilty or inadequate and may even undertake some form of therapeutic activity to overcome the deficiency. Clearly, in this climate, the responses of contemporary students to the items of the IE scale are different from those of students in the fifties.

Our men students as freshmen had mean scores on both the F (Authoritarianism) scale and the E (Ethnocentrism) scale significantly lower than those of seniors graduating the same year. We could not give this datum the same interpretation with the freshmen as we could with the seniors. We could not take this to mean that the students coming to Berkeley in 1965 were complexly developed, flexible, and able to tolerate conflict and difference in themselves and in others. We could not infer such basic personality qualities as we might with seniors. Many of the attitudes which reflect basic personality dispositions identified with these syndromes of Authoritarianism and Ethnocentrism, have been identified and have come into overt question in the process of social change in the lifetime of our students. They are attitudes that many people, especially young people, consciously eschew. The students' response to the E scale is based on attitudes about minorities and outgroups that are very different from those prevailing in the forties, when these measures were first developed.

In other words, changes in recent generations result in the phenomenon of a set of attitudes that were genuine and unself-conscious in one generation becoming an ideology in the next generation. Thus the nonauthoritarian personality of the forties becomes one of a consciously adopted set of attitudes in the sixties.

Changing Attitudes and Change

In like fashion, the very idea of change itself has become a part of contemporary ideology, especially in the college population. The liberal arts college has always had the stated purpose of facilitating development of young people into mature, wise, and well functioning citizens of the world--to transform students by teaching them. And if a number of students in a graduating class have become liberally educated persons--that is, free to function with intelligent adaptation to life's problems--then the educators have been well content. It was not expected that all students would be thus transformed.

In recent years there is a new attitude. Perhaps because of the growth of a developmental point of view in psychology and in popular literature, because of the growth of the existential point of view stressing self-actualization, and certainly since the arrival of the personality psychologist on the college campus to study students not in terms of cognitive functioning but in terms of personality development, the students--and their parents--now have the expectation that in college they will change. Of course it has always been an expectation when a young person leaves home, especially for the first long period, that on his return he will be different. The scene at the rail or air terminal, of the returning offspring being held at arm's length and inspected with the expression, "Let me see if you've changed!" is familiar.

Students have a much greater expectation today. Not only might they change; they should change; they must change. In the ideology of today, change is good.

Some of the changes actively sought by many young students are similar to those held to represent positive growth, according to the developmentally oriented, personality psychologist. In general, the psychologist's stress is on expansion of the personality, a better differentiation of the parts, and a functioning that draws upon and integrates the various parts into a more complex and harmonious organization. More of the person's resources are available to him as a result of this development and he is relatively free of various internal constraints that prevent their flexible and appropriate use. Some of these attributes can be isolated by young people and transformed into highly prized qualities. For example, in a recent high school newspaper article about assemblies the young writer stresses two qualities valued by contemporary youth--being concerned and being aware--and tells his readers that they may demonstrate that they have such qualities by appreciating the relevance of the play about which he is writing. "As DelValle students become more concerned with becoming concerned and more aware of the importance of becoming aware, their appreciation for such relevant assemblies as A.C.T.'s 'America--Black and White' also grows." (Voice of Troy, DelValle High School, January 23, 1969).

Ideology of Change

Often the quality or attitude that is prized and pursued becomes so reified as to seem to be separate from other experience. It becomes a thing unto itself. And, a young person who perceives himself as having the prized quality may be quite unaware of his limited concept of it or of himself. For example, he identifies himself as a tolerant person. According to the current vogue, that means that he is accepting of racial minorities, the poor, and of young people who wish to live life unconventionally, according to their values. But, whereas he may achieve tolerance in this manner, he may be unable to see that he is nevertheless quite intolerant--of the establishment, of middle class values, of policemen. Not all young people seeking change in themselves are so extreme but may find themselves taking such a stance temporarily at some point in their efforts to change.

The fact that change itself has become a pursued ideal changes the study of change. It has already been demonstrated that the attitude and opinion scales may be approached with a different attitude, a different perception of the items, than that which prevailed a decade and a half ago. Furthermore, students frequently respond to the current ideology by adopting it uncritically, giving themselves and others the impression of change, but this is likely to be a very different sort of change from that hoped for by the developmental psychologist or the liberal educator. The psychologist's expectation would be something that might be called development of the character.

The student adopting the current ideology is, in a sense, merely turning himself into a kind of cliche. He doesn't become more tolerant because he has had experiences that have led him to think intolerance is wrong; he becomes more tolerant because it is "the thing to do." The first kind of change comes from the inside out and the second one comes from the outside in and is, so to speak, plastered on.

Under the pressure of the student culture a new student on campus may devote much attention--consciously or unconsciously--to what the image of the college student should be and then attempt to create such an image for himself. It might be said that he puts on a college uniform. One such uniform is that in college one is expected to change. Another is the traditional fraternity or sorority image. In either case the uniform permits the student to engage in a variety of new behaviors which he otherwise might not be able to permit himself to engage in or that he might be a long time coming to on his own. Incidental to the newly permitted behaviors, or perhaps in response to them, there may be some learning which represents a real change in the personality. The question is whether the individual puts on the uniform and learns something else, whether he puts it on and keeps some of it as his own, or whether the uniform permits him to remain essentially the same because he is covered up.

One student we observed is a young man who made a 180° change in appearance, behavior, and the attitudes he espoused, but basically remained the same person, at apparently the same developmental level. He began by entering the Experimental College at his parents' urging, but left it before the end of the first semester--"I was not working very much. Decided suddenly I would wake up and find I'd wasted all this time." He began to think of going into sychology, his father's field, although he spoke of defining his own interests. In the first interview of the freshman year he was described, in part, as "lacks energy, enthusiasm, interest. Sleeps after lunch." In the middle of the sophomore year he seemed much changed, had decided that fraternity and football, entered into after he left the Experimental Program, were not what he wanted. He said at this point that his image of himself was of "a person in change," that he was re-evaluating himself and valued himself for this re-evaluation. At the end of the junior year he had a hippie-like appearance, wore a beard, talked and moved slowly and leisurely. He spoke of being distant in values from his mother, who tried to get him back to safe middle-class life--straight through school, graduate school, safe nine to five job--and his wish not to go back to this pattern, which he identifies with both his parents. He deplored his parents' control of his brother. He had had several LSD trips and felt they made him see things more clearly about himself and his feelings about school. He was not sure that school was worthwhile. The previous quarter he had done all right; during the present quarter he was not studying. He was taking art appreciation and could see no relevance to himself. The interviewer at this time noted that "his rejection of his old self and his parents' wishes for him is complete, and practically an opposite pole. He is leading

a leisurely, bumming, life absorbed with the new consciousness of himself." It was and it was not a complete change. It was a change from being compulsively conforming, to being compulsively rebellious. He was the same person, concerned with the same values--only the other side of them--as rigidly as when he came to college.

One of the young women in the Experimental Program, described as a seducer, a bedazzler, who nevertheless kept people at a distance, had a similar quality of constant change which was highly characteristic of her. She changed in costume, appearance, style of relating. She changed all the way from a conventional girl from Burbank, California, to a Berkeley hippie, and back again. She easily elicited an uneasy feeling of "when will this girl stop changing?" from her teachers and others who knew her. A psychotherapist whom she visited made the observation that a real change in her might be in evidence when she stopped changing, when she was able to be more stable in her presentation of herself. She was one of the students who, on the basis of our scales, was judged not to have developed at the end of the second year.

Unself-conscious Change

Some students appear to deal with the college experience differently. Rather than adopting the ideology, behavior and dress in vogue, the student remains essentially himself. In the process of living and working in college his essence becomes clearer--that is, he seems to be less amorphous and to become more clearly differentiated, more complex and autonomous, holding the same basic values although changing some attitudes, opinions, and behaviors.

In contrast to a self-conscious necessity to change, there appears to be a process of unself-conscious change in some students. This kind of change best illustrates the interactional principle described at the beginning of this chapter. Although they may well be aware of one or another popular image, they are not particularly interested in it in relation to themselves. They are interested in what they are doing, often deeply immersed. In the course of their involvement with some studies, a project, or nonacademic activity (be it artistic, political, or social), while they are absorbed in learning or doing, their attitudes, interests, and behavior change. The realization of different attitudes or ways of doing things may come only after their involvement is diminished, at the completion of their project. In contrast to the more self-conscious student, these students seem to be making changes in attitudes and developing points of view that are more fundamental.

A young man who appeared to us to have changed quite unself-consciously, during an interview in his junior year said he had not changed, actually, since he was a freshman in high school. He felt there was no difference in his basic moral attitudes; that he still thought the same way about right and wrong as when he was fourteen. His education, he felt, had to do with facts and new horizons as, for

example, learning that great national heroes like Washington and Lincoln weren't all "goody-goods," or what ghetto family life is all about. His intention to be a lawyer had continued, but he was developing an interest in doing civil liberties work. In the student's senior year the interviewer noted that there was no change whatever in career orientation, social attitudes, sports, girls, relations with family and with the University. "But he appears to wear it all with more ease. He is more poised and appears more tolerant." Compared to his perspective as a freshman, much had changed. He was more obliging, more aggressive. Still, he felt he was basically the same.

A young woman appeared to be a rather bored, sophisticated sorority girl. While maintaining this stereotype of conventionality, she accomplished a great deal. In her third year her interviewer said: "I am tremendously impressed by the change which she is not very aware of and which is not really so much in the content of what she says, but the depth of her awareness about what it is that she believes, thinks, and sees. My impression of her last spring was very much the same as (the first year interviewer's)--a rather bored, sophisticated sorority-type girl who was in the process of breaking away from her parents but who was doing it by clinging very much to their standards through the sorority and all its implications. This time she looks much the same but somehow much solider. She is willing to be here, but is not eager and, there is nothing phony about her willingness to do what's expected of her, but she's not going to get excited or sentimental about it. She is able to get annoyed with me when I confront her with a previous observation of her which she disagrees with rather strongly.

"She is engaged to be married this June. She is also going to graduate this June. Apparently last summer she realized she could take some extra units, take extra units all this year, and graduate in June without much difficulty. She is getting a B average in a Social Science field major. She doesn't have much respect for it as a major but it allows her to take social science and English, both of which she is interested in. She may teach but she doesn't really think so. She thinks she is much more likely to work, but she knows that the chances of her getting the kind of job she would like, or that is commensurate with her education, are very slim. Her husband-to-be she describes as being interested in advertising, in fact quite excited by it. He is fully aware of the stereotype connected with going into advertising, being an advertising man, etc. Nonetheless he likes it and thinks it's a chance for him to make money and to have some freedom to do what he wants. It develops that she has much the same attitude towards her sorority. She wants to leave, she thinks it's a drag, that it's been useful to her, but the girls now seem either too young or the ones who are her age and older seem in a rut.

"She has been thinking, I would say, quite hard, ever since her freshman year, particularly about the issues that were brought up by Professor B in his course, issues having to do with values, 'hippyism' versus radicalism, and so on. Several other courses brought up the

same issues and she was stimulated by them. By the time she took his second course, however, many of his thoughts were no longer original and she had come to many of the same conclusions. Her brother meanwhile has become a hippy. She has helped her parents in their concern and their attempts to deal with him. She now feels much closer to them, goes home every other week or so, and feels pretty much as thought they are people with their defects, problems, etc., but people she can talk to with warmth. She feels that a few courses have been important in her development, but that in general the most important part of her college career has been the extracurricular business, particularly the hippy movement--not directly, but through her thinking about them and her argument with them. She has adopted some of their values but has maintained her own.

"She now seems a sensible, level headed, practical young woman who has become more of herself at the University. She used various aspects of it to think about what she is thinking about and not for where it will get her."

A change from a rather conservative to a relativistic point of view was made by a young man who spent his first two years in the Experimental College Program. He was rather cynical and self-denigrating at the outset. Over the four years that changed. On our personality measures his profile changed from one that suggested a tightness and counter-phobic self-assertiveness to a more comfortable stance which might allow him to see the world less in terms of black and white. He made a fair, but mixed, impression on his first teacher: "Bright, quick, mercurial fellow, who has capacity to do first-rate work. One of his papers was excellent. Unfortunately he has a tendency to perform, to sort of clown his way from important, personal, and, perhaps, painful discussion to safer, less important banter. He has a good mind which he apparently lacks confidence in. Or he lacks confidence in some facet of his character. Nevertheless, he appears to have so much to offer. The hope is that when he himself can begin to appreciate his own true worth, he will no longer find it necessary to do a soft shoe routine instead of earnestly entering into a serious conversation. We feel that he has the potential to become one of the better students in the program."

It is interesting that this evaluation noted the discrepancy between ability and achievement, for it was a similar evaluation, based on an IQ test and his school performance, that, he felt, led him to develop a reluctance regarding performing in school. He had an active interest in history and he read a great deal in high school. Yet he resented school work--which he regarded as busy work--so much that he merely "fudged through" with C's. In his sophomore year he was expelled from the High school that he attended as the son of an Army officer stationed in a foreign country. He was admitted to Berkeley on a conditional basis, with the sponsorship of a professor who knew his family.

Coming to the University was not apparently a strain for him. He enjoyed a weekly round of golf with his professor friend, joined a

fraternity (he subsequently spent some time in jail over a fraternity prank), and did not put forth any more effort than he had in high school. Having lived and traveled in other parts of the world, he was sophisticated. In his views he was conventional and conservative. One of his professors noted that he favored law and order and supported the war in Vietnam.

It was also apparent that he was a game-player who devoted himself to making a good impression and getting grades with the least amount of work. In one of his papers in the first semester he attempted to do what he had apparently become accustomed to do in high school. As he saw it later, it was "a sophomoric effort to compare a Greek play to a soap opera, as a dodge to cover up my lack of understanding." His teacher, who had already been aware of his having a cynical expression in his eyes, told him the paper was fraudulent. The teacher noted that the student responded to this criticism with some enjoyment of the fact of his cleverness. The student told himself that he really wanted to do well, began reading early, read and reread the material he had been neglecting, and even underlined important passages. But his performance did not improve. He was very discouraged at the end of the first semester.

As his efforts to become a serious student continued, he began to become involved in the intellectual work of the program. With that involvement a conflict developed between his intellectual interests and his involvement with the military. Because of his familiarity with the military through his father's career as an officer, and for practical reasons of income and the draft, he had signed up for the reserve officer training program on campus. Increasingly in the first year he felt the military training was contradictory to his intellectual work and growth. Later he said, "It is ironic that military science alienated me because I agreed with many of their tenets . . . But, as far as they are concerned, you must support a given policy because you are ordered to do so." The contrast was sharp between the attitude of total control he perceived in the military program and the attitude in the ECP, where he felt encouraged to develop his own thinking and point of view. The contrast was epitomized in moving, several times a week, from military drill, relentlessly executed in all weather, to seminar discussions at the ECP. It was always a difficult transition to make, and sometimes he felt it was impossible. At the end of the first year he resigned from the reserve program.

He completed the Experimental College Program satisfactorily. He had to take one quarter off because of illness and had difficulty learning a language. Otherwise, no special comment was made about his work, and he continued through the final two years of college without interruption. In his third year he encountered his first professor from the ECP who noted with interest that his eyes looked different--there was no longer a cynical look--his voice was different, he talked more slowly, and he seemed to be thinking while talking. In his third year he married his girl, whom he had met and started going with in high school.

In our discussion group at the end of the senior year he was one of the more thoughtful young people that we encountered. Besides demonstrating a relativity in his thinking that is most impressive, he gave the impression of enjoying life, not as "fun," but as hard work in exploring, learning, and changing. He seemed to be aware that he had been cynical.

In making a prediction as to what our study would learn about change in college he felt that there would be major change taking place in the first two years. "You will find a point of extreme cynicism and iconoclasm, because when you come here you find everything you believe in is wrong--that causes a reaction--and you move away from that reaction of cynicism as time progresses because you find things here a person can believe in. For myself, I understand the outside society more but I can relate to it less, live in it less.

"I've evolved a personal philosophy, of how I want to live my life--and that doesn't mix with the rest of the society--not compatible too much--but then, I don't believe my answer is everybody else's answer.

"When I came here, everything I accepted was gradually torn down. I had to build my own personal philosophy--especially because Berkeley is so political--in order to relate to Berkeley politics. Berkeley politics is a very compelling thing. I had to figure myself out first--I evolved through a lot of changes, my own feeling about power and about human relations--which I feel is the basis of my personal philosophy--which is that one should have as few constraints as possible placed on the expression of your total, of yourself. And the culture, your cultural tradition, limits you, very much. And if you are a little bit credulous and a little bit willing to accept strange things, then you can experience a whole range of things that you would not--that your culture would not--allow you to experience. That's sort of where I got and that makes me kind of an anarchist politically."

When someone in the group asked him what was important in the development of his philosophy, his answer indicated that he had a strong sense of doing things for himself: "Everything was important. The iconoclasm, people not accepting, questioning value systems. A complete reversal of any school experiences I've ever had, immediately upon my arrival. I was expelled from high school, in trouble all the way through, just got C's and everything. I talked my way into school, into the Tussman Program. All of a sudden everything was different. I was relating to what was happening, and people were <u>trying</u> to be honest with each other. I don't know that they really <u>were</u> necessarily, but they were <u>trying</u>. I don't think I had ever been in a situation where people were really trying to be honest with each other. They really questioned things. That's the way it was on that level. And on another level, smoking grass, getting turned on to the drug scene, which makes you so all of a sudden look at your whole society, your whole context, in a completely different--from a different standpoint. (Because of the grass?) Oh, yeah, and everything. The whole Berkeley

experience. It's hard to pick out any one thing and say that's the most significant thing. This place is very heavy."

The emphasis on experiencing the "Berkeley scene" was one made by many of the students in their efforts to understand what was especially meaningful to them during their four years here. Some of the others in the group agreed with him that being exposed to it was important to them too. He explained that he was talking about being exposed in the sense of assimilating it in some open-minded manner. He observed that he himself, and others in the ROTC program, did not relate to the University at all at the beginning. They were cut off completely from it. It was only when they began relating to the Berkeley community and to get really involved in it, that a lot of changes began to come about.

Another student, a young woman in the group, objected that she could not see how anybody could come here and get cut off completely: "If you're here, you're exposed to it--if you just walk down Telegraph Ave." He responded: "But that doesn't mean you relate to it. A lot of people here don't relate to it. They don't want to understand it and just block it all out."

The distinction--between being exposed to, and relating to, something--is one he considered important. In the following exchange with one of the other women students in the group he made it even clearer that he was very aware that a person has much to do with how his world is and what happens to him. Apparently responding to his note of adventure and enjoyment, she asked him how he developed such a positive attitude about all of his experience. He didn't know. He simply liked it here and liked the people. In her experience, she felt she was directed (a sense of life that many students express). She said, "I know I direct myself, but seeing how a system tells you . . . you are taught something and you use it to your own end. I'm in the Peace Corps and going to grad school. Okay. You may be able to use it, but at the same time you are being used as a resource . . . I don't want to be just used as a resource." By being in the Peace Corps, she felt that someone was getting something out of her and so hindering her, limiting her own interests, and keeping her from being free.

He responded, "That depends very much on where your head is at. Whether you are willing to let . . . Like, I accept that there has to be a society, and studying history and anthropology, I've come to the unshakeable conclusion that all societies are screwed up and its ridiculous to say that one society is, that your society is not going to be screwed up, because it is. It just could be less screwed up. There are lots of societies that are more screwed up than other societies, and, but, you have to have societies, especially now, because you have all these, uh--social structure, technological structure, and industrial complex--and it supports more people than the ground would if it all fell down. And all these constraints that society puts on you also keep people living together and keep them alive, and, you know, there

have been few societies that have done that at all well. And so, okay, so I don't mind coping with society, and I don't feel like--uh--if society uses me, I'll contribute something and I think it's all according to where my head's at, whether it's a big heavy thing or not, and I don't think it's a big, heavy thing."

Although he referred to himself as being an anarchist, his point of view was clearly still basically conservative, but it was an enlightened conservatism, not a rigid one. In a part of the discussion about the campus atmosphere he said: "I loved the University the first two years because I thought they were so nice, because they let me in, they did all kinds of things, they didn't hassel me, they weren't going to kick me out because I talked in class and things like that. Meanwhile, the kids, the rallies and stuff, were just as dogmatic as the people I knew in the South, and they really put me off, so I didn't relate. . . . It's a very scary thing, because they make the same kind of moral judgements about other people in the plaza as the College of Cardinals does. That's what's wrong with society: people making judgements about other people's morality. 'I don't have to reason with you any more because if you think that, then you are immoral . . . I can use all these sanctions . . .'"

Many students believe that drug experiences give them greater freedom from the constraints of society. Others feel that it provides them new experiences, a greater awareness of themselves, and thereby expands their minds. In a discussion of this kind this student had another view. "I think one thing that it really does to a person is kind of structure your relationship to your society. All of a sudden you're looking at society from the other side of the law. It's a very freaky thing. Like, you know, you see that, you begin to realize that, 'My God!' There really are things that in terms of individuals are really bummers, that you just didn't think were at all, that you didn't really relate to. You didn't see how you can't relate to somebody being executed by the state unless you can relate to, you know, put yourself in that position. And being on the other side of the society, feeling that society is going to come after you, that society, for doing something you're doing, society can, you know, incarcerate you or do whatever they want with you. I think it becomes a very important--significant--realization to people that, you know, all of a sudden you realize that this thing, this whole system that you live in, can devour you. But at the same time also that, you know, like I began to look at other societies in those terms too. What would it be like? What would they bust me for in Nazi Germany? What would they bust me for in medieval Islam? What would they bust me for in Brazil?"

Other students experienced the feelings of being outside the law and outside their society but few of them reported relating to the experience quite so actively or using it to develop their perspective and understanding of other societies.

Upon graduation he was considering going into the Peace Corps. He wished to return to Malaysia--where he spent part of his adolescence --and to help the Malaysian people develop their crop yields--after he has learned how to do it himself. The idea is not simply to improve their own food supply, but to produce a surplus that can be sold to gain the kind of power that the big powers respect: money. This pragmatic attitude, the acceptance of the broad relationship of things to each other, seemed a far cry from the tightly organized young man who, in his first semester could not let himself consider anything seriously. This account is not meant to suggest that all his experiences were positive ones or that all his actions were necessarily integrative, but that, on the whole, he seemed to make use of his college experience toward his development. As we completed our report during the year following graduation, we learned that he was apparently carrying out his intentions: he was a graduate student in Asian Studies.

The story of this young man is a variation on a theme that has been lived many times over by many students. It has been reported in many studies. In its most general form it is the theme of liberalization, or of liberation: the development of a young person who begins college a relatively constrained individual oriented to authority, and ends four years later oriented to his own judgment and more flexible and relativistic in his views. Instead of struggling with himself and authority he was working more or less effectively for himself.

There are students who are even more contained at the outset than this one was, who account for the entering freshman being described as "having an authoritarian attitude." Such young people arrive in college with considerable uncertainty about themselves and about their power, and they look for external guides: the expectations of their teacher (what does he want me to know?), the certainty of facts about the world, and the truth in whatever matter. These young people, in a sense, are not fully themselves. They must discover themselves by realizing that there are no final answers, no authorities they can depend on "absolutely."

Many of them do get a better definition of themselves, of their own power, in this way. It is not usually a conscious process, but is often implicit in the students' discussions about themselves. They find that they have experienced a shift from feeling unsure about their own opinions and impressed with the certitude of facts and the wisdom of their teachers, to feeling confident about their own opinions and having a much more relativistic view of the world.

Some experience such a shift only in a limited way. Others foreclose the possibility of such a shift by committing themselves to one or another form of dogma. For example, several of the students we knew became strongly engaged in religious movements. They joined for their own personal religious participation. Some of them also became dedicated to proselytizing fellow students to join. For the most part

they were engaged in well-known fundamentalist religions. However, we include among these students one who became dedicated to Scientology and intended to become an official in that organization, and two whose total commitment to encounter group work--both as participants and later as leaders--impressed us as quite comparable to a conversion to religious belief. No doubt there are still other variations on this theme, such as a particular philosophical point of view or scientific theory being made into an absolute dogma by the young person seeking certainty.

Obviously, it is not always the case that a young person who becomes interested in a religious philosophy does so from a position of uncertainty, or that he forecloses other possibilities. Some of our students at the end of their fourth year did appear firmly and dogmatically committed. We knew others, however, who explored a particular religious view--or sometimes several--quite intensively, but their interest in something "sure" seemed transient, and even while we still knew them they proceeded to other sorts of interests.

One young woman appeared to have a different basis for her interest in religion. She became acquainted with it through her academic studies, became engaged in it personally and also as an ideal commitment to serving the community well-being. Unlike the others, who appeared to feel uncertain of themselves and afraid to act, she felt a readiness to act that she feared might lead her to overdo, to be overinvolved.

She was a substitute for an interviewee who left college and therefore was first interviewed in the middle of the second year. Her interviewer described her as: "Tall, large girl, reddish hair, angular. Glasses. In jumper. Neat looking. Gives precise answers--has opinions on everything." Her sense of energy, of self-assurance, and readiness to act was immediately apparent. Also apparent was her awareness of these qualities in herself and her need for exercising restraint over them. When asked to tell about experiences that had been most important to her since coming to Berkeley, she immediately responded, "my involvement in politics." She had been involved in civil rights activity in the East and had moved toward the left. She said: "I have to keep in mind the complexity and not get involved in black and white foolishment that goes on with radicals on this campus." She had worked full time on the student strike her first year here. She said: "Someday we are going to get the things we strike for, preferably not in the way used in the strike. But there is no stop to it."

Her parents were conservative people both of whom had been through Eastern colleges and sent her to a private high school. Both worked. They were not active in the community politically or socially, though they adhered to conventional social codes and had wanted her to enter society formally with a debut, which she refused. Of her relationship to them she said: "I don't feel I am rebelling; I just don't feel related to them. I just don't talk to them if there is a conflict."

She saw her family as not offering her much: "they're hung up on background--Old New England--that's about all they have left." Her father was painfully shy, unassertive. Her mother gave up her intellectual interest for marriage, but "can be pretty reasonable."

She felt she didn't know how to handle social situations, was particularly shy with men, and had much of her social experience in the context of work parties, political action groups, etc. She was very active with groups but did not join them. She had rejected homosexual relationships (to which she had been exposed in high school). She felt herself to be intellectually arrogant, but with a tendency to balanced thinking. She majored in history--decided in the eighth grade--and planned to teach at the college level. Her leisure reading was mostly nonfiction, including Modern Christian Theologians and current events. She was already a dedicated scholar.

The theme of self-control was prominent in her talks with us. She smoked marijuana--"like social drinking." She would not take LSD because of disturbed periods in high school when she had a "tendency to go in myself, to wish to take something that takes me inside." It was as though she felt her impulsive energies were precariously balanced and she feard going too far outside or inside herself.

She felt some temptation of this sort in the political activity in Berkeley and deliberately returned each summer to the extreme conservatism of the New England summer camp for adolescents where she was a counselor and taught mountain climbing. She said it served as a balance to the radical, oversimplified position taken on campus toward which she felt herself impelled, as well as to the generally free and open attitudes stressed in Berkeley living. Of course, it may have also served to bridge the gap with home. "The camp is a good environment, it does good things in a close situation. It helps develop my tolerance for incongruity. Each change back and forth is a cultural shock, but I can still talk to those people." In her work she felt she could give the kids the feeling that it was possible not to be confused (by the multiplicity of environments in the technological world). "Mountain climbing is a character building exercise. Character is built through exercise, and discomfort is good for you. Self-restraint is good for you. You learn the ropes and then you know what you ought to be doing. You can throw yourself into things with exorbitant emotion. It's the joy of survival and doing well." As she talked about Berkeley and the camp, it seemed she feared she might settle for one of them so she made herself learn to live in both.

At the end of the second year she said she was having more unintellectual fun in her house with grass pushers living below and lots of people going in and out. She was high quite often. She had a boyfriend but thought it was not really important because she was not afraid of him and if something really touched her she would be afraid. However, she had found out that men were human.

Even in her intellectual efforts she was acutely aware of the balance between her impulse to plunge into the world or out of it. She was writing a paper on Henry Adams. She felt somehow related to him in her emphasis on order and rationality and her aristocratic background. She thought it was not good for her to think of herself as an anachronism brought up with values that didn't exist anymore. She might find it easy to think the world was going to the dogs and look on it from the outside.

In the winter of the third year it was less of a problem to be home at Christmas. She had pretty much integrated these two parts of her life. She had been happier at the summer camp the previous summer and looked forward to returning the next summer. At Berkeley she was active in all the political things going on. She had demonstrated at the Oakland Induction Center and had spoken at illegal rallies, but had not been cited. She was carrying on but without enthusiasm. She felt it was no use, but there was nothing else to do. That year she took LSD once.

She had had a fling with metaphysics and was considering becoming a Christian. She had nobody that she could talk with about this who would understand. Everybody was hedonistic and enjoyed living for the day. She too enjoyed it but she had the need for a commitment to something, and since it seemed not too much out of her line, she thought a commitment to Christianity would be all right. If she just lived hedonistically she would forget other people. She was forgetting her roommate's feelings. It also showed in her relationships with other people. Also, she wanted at some time to get beyond her rationality, and Christianity could provide one way of doing this.

In the spring of her third year, "there are more things and more people." She had become a lot less dependable. She had met a young man--a sophomore with a similar major--and they got along marvelously. They were playing and living together and she really grooved on it. It was nice. It was not intellectual.

She had learned not to show off. She expounded less and talked more. She had lost some aggressiveness. She lived in an apartment where there is a lot of interchange between people and the talk was mostly intimately about people. It was difficult for her to keep all the people and their affairs straight. She could do it mechanically, found it unsatisfying.

In her senior year, in the History Honors Program, she wrote a thesis on Victorian Religion. She had had a good summer in the camp. Here she was dismal. She felt she ought to break up with her boyfriend before they hated each other. They were not doing good things to each other's heads. They didn't make each other free anymore.

She continued in political activity but felt dismal about that too. She did it now from a sense of duty; she felt she owed it to the people

and that it helped the people to experience incongruities such as the strikes and demonstrations. Her roommate wanted her to take LSD with her. Our student had taken it a few times but did not have good trips. She wanted to take it with her roommate so she could understand her symbols.

She now thought some of the things Berkeley people thought great were a drag. Politics and drugs. Her thesis was exciting to her--"a piece of history, good solid history, that has an underlying structure," and her theory of society. Some kind of change and consolidation seemed to be taking place, but we weren't sure at that point what it was.

At the end of the year, in the discussion group that our interviewee was in, a young woman had been talking about finding the most fulfillment and being most effective in building the revolution, saying that her own personal desires were quite compatible with the essence of the revolutionary movement, so they wouldn't be squelched. Another student responded:

"That's really interesting because when I first came here I was involved in a Zionist movement and I had very altruistic, idealistic feelings, and then gradually I got away from that and started to care more about myself and what I wanted to do, individually."

Our interviewee said: I think both those things have happened to me at once. If I were to pinpoint what it is that makes that true it's that in the last year I've become a Christian. That makes me a great deal more committed to my radicalness. It also makes me very much responsible for everything I do. So that, it's both those things happening at once.

Other student: Was this sort of a mysical experience? Rational?

-- No, it's not at all mystical. It was a rational experience, and one that surprised me to death. But there I was . . . almost an academic experience.

Other student: Did this, like, environment not force you into it but heavily influence you into that decision?

-- No. This environment had very little to do with it. As a matter of fact, I had, I--what precipitated it?--a lot of study on my own of--I'm in history and I'm very heavy into history and I've studied what causes change and I've studied what are the dynamics of change at any time; effectively, that's what history is. And looking at it long enough I ended up a Christian and that means a lot of study of the middle ages and also means a lot of study of right now. And I've always been more or less politically active. I'm much more committed now. Before I was active; now I'm committed, because there's a much stronger guiding factor overriding the whole thing.

Student: That's really interesting. That's about the first thing I've heard of like that. Did you come from a Christian family?

-- Yeah, but I--No, there was not much pressure, and I was, you know, a good militant atheist in high school. I suppose there was some sort of backlash when I was doing it. I would definitely say there was backlash when I was doing it. It was somewhat neurotic.

Student: Do you think it's political now or is it really religious with you?

-- It's religious.

Student: That's really interesting.

-- I consider myself a freak, you know, I do find myself a freak. I also like school and that makes me an incredible freak among people that I associate with. I don't say that they have to like school and I don't say that school does anything for them, but I've discovered how to make something out of it by pushing and pulling and insisting on doing it on my own, and that sort of thing. And that works. I think that's something everybody's run into.

Student: Are you doing anything with a group? The "Christian whatever"?

-- No. I'm not doing anything with anybody, as far as that's concerned.

Student: So, it's all on your own.

-- Yeah.

Group leader: Why does that lead to a greater commitment?

-- I have more responsibilities all over the place; I have more responsibility to worry--since we happen to be in this theoretical democracy and therefore we're theoretically supposed to be interested--I have more responsibility to attempt to carry out that, in such a way as to make the thing work (which at this point I completely agree with L's requirements for a revolution--I'm not quite sure exactly what kind, but you've got to have a revolution in order to do that) so I have more responsibility to do that. I can't put that in to try and keep my, you know, to do what I need to do for my own head to do that right, and I also have a responsibility to be committed to making this a more possible community--it's not even a possible community at the moment.

This student's intellectual interests and scholarship had for some time provided a framework and order and meaning for her life such that her dilemmas regarding sexual and social impulses were manageable. Her becoming a Christian (sparked, in party, by her reading of Taillhard de Chardin's sweeping concept of God) apparently provided something more: an integration of disparate, conflicting elements in herself, which

gave unity to her intellectual and social interests and direction and meaning to all her actions. It did not appear to be a foreclosure, but a new guiding philosophy, although we suspected that her humor--particularly about herself--might be giving way to what seemed like an awesome seriousness. She felt "change" was the wrong word for what had happened to her. "I haven't changed, I have become more so. I see things as a continuity." She went on to do graduate work at Harvard.

There were other students dealing with a similar developmental problem--those who came to college relatively self-confident, talented people who had a greater than usual readiness to act on their impulses and to act independently. Some of our observations suggest that more young men and women coming to college are like this (Chapter V) and that there are many variations on this theme. As in the case of the student just described, their impulsivity may be threatening to them. Or, it may involve them in diffuse activity with no direction, like the student that constantly changes. It may make it difficult for them to function productively in the academic setting, or in their personal relationships. At a deeper level they may have a painful time of it dealing with their rage and their tenderness.

A student of this sort may be thought about in a different way from the student looking for an external authority. This relatively more impulsive type often may be seen as a kind of revolutionary, trying to change his world to suit his views. (Some of these, like the young woman in the last discussion described, actually do join revolutionary movements.) We are describing an interpersonal revolutionary who tried to make every relationship or personal situation suit himself. He was an "operator," a person who attempted to manipulate or charm or bedevil those with whom he came in contact. Typically, he "gets away with murder." Because of his talent at charming, he never quite had to meet the requirements and therefore never fully engaged himself in anything. He too had never realized himself, his power, or his capacity. To do so he had to be able to choose to do something in the world rather than simply changing situations to suit himself. He had to come up against someone who wouldn't be charmed or manipulated, wouldn't let him get away with it.

Such a young person is often among those who most frequently drop out of college (Suczek and Alfert, 1965). On the other hand he may charm his way through college, always with special arrangements and accommodations, because he is talented. He may find himself through personal encounter with a teacher--sometimes with a psychotherapist--or through an intellectual interest and commitment that is demanding and provides some integration as it did for the young woman we just described.

These are some of the variations on the theme of change in college. Sometimes there is only the appearance of change, but most of the individuals we have described in some detail represent--in one degree or another--what we would consider good developmental change,

with the individual better able to make a life for himself and apparently still in the process of change as he leaves the University.

There are a myriad other outcomes: those who seem worse off for their experiences--those who fall by the wayside--some permanently: suicide, profound psychiatric illness; some temporarily: transient psychiatric or physical illness, dropouts, or change in goals and plans because of external events, such as military service.

In brief, various kinds of change take place as the students deal, or fail to deal, with the problems and situations with which the college presents them and into which their interests lead them. It is apparent that rapid social change is changing the nature of change and the study of it. Rapid social change, particularly to the extent that it contains an ideology that stresses the importance of change, modifies the interaction between the subject of study and the instrument used to study him. Such change also modifies the interaction of the subject and his natural inclination toward development, because that development is forced, in many instances, into a more conscious process than it usually has been in past generations. Thus, some of our subjects are more centrally caught up with the process itself than others who continue, in more traditional fashion, to let the development happen while they go about their business in college.

CONCLUSIONS

In the process of the study many of our original questions changed as we learned about students and their college experience. In some instances our thinking changed so much as to make some of the original questions irrelevant and we developed new ones. In order to summarize the results of our study we shall present our finding from the perspective of the questions that endured, including also those we hold as meaningful at the completion of the study.

1. Taken as a group, students are inclined to select for themselves the educational program that gives them the most predictable world-as-they-know-it. The students selecting the Experimental College Program, as a group, had characteristics that led them to be attracted by the image of the program as experimental, nontraditional, informal, risky, and imaginative. They were seeking an educational experience that would be different from the conventional one, that would be exciting, that would allow them much latitude to generate their own ideas and express themselves.

As a group, students choosing the regular lower division program diverged significantly from these qualities emphasizing instead many of the opposite characteristics.

At this level of analysis then, the process of self-selection apparently results in statistically differentiated, well-defined groups. In the case of a special program such as the ECP, a similar state of affairs might be expected in the faculty. As homogeneity increases within a group there arises the tendency to limit the possibility for challenge, interaction, and for maximal development of the students.

Taken as individuals, the students in each of these differentiated groups vary considerably in their personal characteristics, level of development, and their interests so that new and varied experiences are quite possible and did occur for a large proportion of the students. The faculty of the ECP also proved to represent different and, in some instances, conflicting, points of view which provided a focus for much of the tension in the program and the impetus for re-examination of their concepts of education.

Finally, self-selection continues to take place when the special eductional program is under way by virtue of particular students leaving the program and transferring to the regular undergraduate program. In the case of the ECP, the personality characteristics of students leaving the program showed them to be quite different from those who remained in personal qualities that could make them incompatible with the atmosphere of the program as defined by the other students and the faculty.

2. Our entire sample showed developmental change as defined by the personality measures: that is, a general liberalization of attitudes

making possible a more relativistic outlook on the world, flexibility in thinking and acting, openness to new experiences, and compassion in dealing with oneself and other people.

The group of students who elected and participated in the ECP were relatively complexly developed, according to our scales, at the time they entered college, and they made further moderate developmental changes by the end of the second year in the direction indicated above. The group who elected the ECP but participated in the regular program, our first control group, showed a similar pattern at the outset and moderate change at the end of the second year. The group who elected the regular program, our second control group, was characterized by relatively less complex development at the time of entrance and showed the largest amount of change of the three groups by the end of the second year. The net effect we observed, then, is a leveling out of the differences that existed at the outset, so that all three groups were at about the same level of development by the end of the second year. These findings suggest that there is no difference in the effect of the two different educational atmospheres.

3. It is not the educational atmosphere alone that is significant. It is the interaction of the student with certain aspects of the educational atmosphere which is relevant to the student's development; specifically, those aspects of the atmosphere which represent a discontinuity in his experience such as to challenge him to respond in new ways. Students coming from a relatively structured form of family life, for whom the ECP's unstructured atmosphere represented a situation requiring new modes of response, showed developmental change on our measures more frequently. Conversely, students from relatively unstructured family experiences, for whom the ECP was a familiar atmosphere, showed developmental change less often. The same relationship, in its reverse form, holds for the structured atmosphere of the regular lower division program: students from an unstructured family background changed more often than those accustomed to a structured atmosphere. In short, it is not solely the nature of the educational atmosphere but whether that atmosphere represents a challenge to the student that will be relevant to his development.

4. Change in attitudes in succeeding generations of college students is being accelerated by rapid cultural change. Students entering college in 1965 responded to personality scales with attitudes very similar to those of the students graduating from college in the same year, implying a similar level of development. The pattern of responses suggests the liberalized attitudes typical of the graduating senior. Some of the responses were even more extreme, suggesting a greater development in the direction of more liberalized attitudes on the part of the younger students. The nature of the attitudes shared by these two groups suggests a common influence: the social revolution taking place especially in the younger generation. That influence effects changes in attitudes and also in ideologies, both of which are reflected in

our personality measures. Therefore, the similarity does not fully represent developmental change as much as ideological change. To whatever degree the similarity represents change in attitude, it seems unlikely that the younger students have had the opportunity to integrate the attitudes they hold.

5. The process of conducting the study led to changes in attitudes among the researchers. The impact was to make us seriously question a) our conception of the study as a controlled comparison of change in two educational structures, b) our instruments, which reflected fashionable ideology as much as basic personality dispositions, c) whether it is possible to measure change in a linear fashion, and d) whether it is possible to measure the relationship between change and any particular educational experience. These changes provided a different focus for the study which is reflected, in part, in the remaining conclusions.

6. A consequence of the educational structure that brings together a group of faculty and a small body of students for an extended period of time is a personalization of the educational experience. Such personalization can have a profound effect on the student's relationship to his education. His perception of the university is more differentiated, and he is freer to respond significantly differently to it and to institutions and individuals in it. For example, the overall dropout rate was reduced, in part because of the freedom of the educational structure and in part because of the personalization. Significantly large numbers of students who had characteristics associated with a high dropout rate remained in college throughout the four years. In another dimension, as a result of the personal acquaintance with a member of the staff of the Student Health Service, significantly large numbers of students used that service.

The exposure to an intimate view of his teachers can enhance the student's perception of his teacher as a human rather than as simply an authority. Differences among teachers regarding subject matter can underscore the relativity of ideas, concepts, etc., and demonstrate their complexity. Finally, the establishment of personal relationships with individual teachers can provide continuity in the educational experience of the student and opportunity to try to work out important developmental problems, sometimes with good effects, sometimes not.

7. Patterns of change of individual students are being effected by cultural changes that make change itself an ideal. Thus change is actively pursued by young men and women in college as though it were a new curriculum. Nevertheless, many students change quite unselfconsciously in a variety of patterns and circumstances. Some maintain the same basic values but become more differentiated and better defined, whereas others develop new attitudes and values in the process of involvement in an academic, social, or political activity. The differentiation or change that results from such engagement appears to

be more profound than that which accompanies a simple passage through college with minimal involvement. Another pattern entails students changing as they discover themselves as a locus of power and of direction for their own life. Some make the discovery as they attempt to find absolutes and learn instead that their own judgment is dependable; others discover that they can make their own choices and use their talents fully for themselves rather than diverting their talents to manipulating others into making special concessions and arrangements for them.

8. Common themes that prevail in the students' ideology are: the importance of involvement; the importance, in anything the student undertakes, of the contribution his activity will make to the community welfare; the importance of developing a life which in addition to contributing to the community, utilizes his capacities and interests and is fulfilling to him (in this sense, students do not think of careers as much as of life-plans). Finally a theme which is not so much an active interest in the same sense as these, but is a part of life for a majority of these students, is the acceptance of the idea of drug use in their segment of society in day to day living much as alcohol is accepted by the older generation.

RECOMMENDATIONS

We have three areas in which we wish to make recommendations. One has to do with the Experimental College Program and programs like it, one is in regard to University programs in general, and one is with respect to the study of change.

First, in regard to special programs: students should have the option to leave a program provided they do so after a period of time which should be defined by the faculty and the student when they are in consultation about the reasons for the student wishing to leave. Similar consultation should precede the faculty's exercising its option to ask a student to leave. We felt that some of the students who left the ECP might have benefited by remaining to deal with the developmental tasks that confronted them there. Others stayed for whom it did not appear to be a useful experience; these might have gained more in the regular program. In both cases some greater effort by student and faculty in attempting to evaluate such circumstances might have been beneficial and appropriate. The effort on the part of the student and the faculty to make the student's education relevant should involve both of them in careful consideration of the student's developmental needs and the relevance of the program to them. Relevance may be in terms of similarities of student and program style, so that the student qualities may be enhanced, or in terms of difference, so that the student is challenged, but not unduly so, to develop new ways of functioning. The model we are suggesting is one in which the whole student as a person is the unit of consideration; for example, if he is verbally talented he won't be permitted to dazzle himself and the faculty into overlooking his need to learn what his real talents are and how to use them. The process of consultation about such things should be built into the educational structure.

If the Experimental College Program is to provide the opportunity for students to be open to the personal scrutiny and evaluation of the faculty, then the use of that opportunity should be more than a matter of personal discretion on the part of the professor. It should be a professional concern of all the teachers on the staff to participate in a careful evaluation of students in order to maximize the opportunity to know the student's intellectual and developmental needs and to offer guidance appropriate to them when the student wishes it. Not that one teacher alone cannot develop a sensitive understanding of a student, but that anything that will enhance and expand that understanding will improve the effectiveness of the program. The guidance emerging from a group effort can be used by one teacher who is currently responsible for the student's individual work and who would be available for consultation with the student.

Such consultation about and with individual students should be a professional matter and should be a part of decision-making by the staff rather than the private initiative and judgment of one teacher. This means that teachers need to understand some of the characteristic

developmental tasks students are dealing with and to know what might be useful attitudes and action on the part of the faculty. Knowing the student in more than one kind of setting or task performance could be helpful in this respect. This means the work of the staff must be expanded and mechanisms must be developed that will allow for awareness on the part of the staff of agreement and disagreement about students and how to use that information in understanding and helping the individual student with his decisions about his education. The fact that the staff of this experimental program encountered major disagreements about the program argues in favor of efforts to develop and institute such mechanisms to improve communication and collaborative effort.

Our second area of recommendation bears on the University having programs like the ECP. The ECP we studied was an attempt to develop a prototype of a "first program" that might become a requirement for all lower division students. If the University were to institute a single first program for all lower division students, then of course the students' choice would be made in terms of the University. Some would choose not to come.

We are not prepared, on the basis of this study, to support arguments for programs like the ECP as against the regular lower division program. As has been indicated, we came to feel that such a comparison may not be reasonable or workable, at least in terms of the variables we are considering.

Ideally, whether selecting a college or a program, a student should make a choice seriously and with careful consideration of what kind of commitment he is ready to make and what the strength of his commitment is. Once made, once work is begun, any reconsideration--any thought to leave--should be studied with equal seriousness by him with the guidance of the faculty. If a required first program were instituted at the University it would necessitate a well-developed capacity for the kind of faculty-student consultation we suggested in our first recommendation.

As an alternative to a single first program required of all students, or one program offered as an alternative to the lower division, we would recommend a choice of several programs that could offer an option for the student in place of the lower division as now constituted. We are proposing a variety of programs not just in terms of areas of intellectual interest, but in such aspects as degree of structure, student participation in planning, degree and length of contact with teachers, and other variations.

Because of our observation of the importance of challenge, especially if encountered by chance, or incidental to some other endeavor, it seems important to plan educational programs in such a way as to improve opportunities for that kind of experience without necessarily forcing any student into them. Because of the wide range of individual personalities and levels of development it seems prudent

to make available a variety of first programs to lower division students. Although there is a tendency for students showing similar qualities to be attracted to a particular program, the individual variations are still sufficient to make a new kind of experience likely for many of the students. We would stress, however, that rather than making the educational institution into a cafeteria, we should increase every effort to help the student to come to a firm decision about himself and how his interests might be best served by a particular program.

A corollary to this proposal is that faculty should have maximum opportunity and support for developing different kinds of programs. They should be able to offer programs for periods of time according to their interests and student interests. An emphasis on ongoing experimentation with new educational forms--of varying duration, structure, and content--would provide a means whereby higher education and rapid cultural change could be meaningfully integrated in the student's life rather than in conflict.

One further consideration regarding the University: the first programs or experimental programs we are suggesting would all have the quality that we found of so much importance in the ECP, that is, the possibility of an extended personal interaction between teacher and student in the course of their work. We were impressed in a variety of ways with the importance of that experience to the student's attitude toward the University. We have wondered whether the same experience could be usefully extended to include exposure to others on the campus, especially administrative officials: whether the general campus atmosphere could be different if administrative officials and students were more visible to each other as persons rather than in terms of their respective corporate images. This would no doubt require new campus institutions or new life styles for administrators from the president on down, as well as for students, but it seems possible that it could contribute to the re-establishment of a sense of community and common purpose that is so sorely lacking on campus today.

Our final recommendation concerns research on change. Especially in our own experience of changing while in the process of doing the study, we were acutely aware of change being a nonlinear process. For example, we experienced occasional awareness of the disagreement of our design, which postulated two unitary structures, and our observations, which demonstrated diversity on all sides. We denied that awareness, put the disagreement in the background, only to be reminded of it a little later by some fresh bit of evidence. The cycle was repeated many times and in respect to different aspects of the study. It was when we were considering the work of the final year and began considering different plans that it became evident to us that we had changed our views quite basically. The effect was one of a quantum of change, not of gradual change. We observed similar phenomena in the process of change experienced by the teachers and the students as well.

In light of these experiences, the measurement of groups by means of personality scales administered at intervals of time seems limited

as a means of studying change. Yet, as Freedman (1967) has so aptly demonstrated, this method may have a particular and unique usefulness as a key to understanding social change. Changes in attitudes and values measured by our scales that may be so small as to be imperceptible in the individual can be shown to be, in the aggregate of an entering class or a graduating class, significant shifts in attitudes of succeeding classes of students. Such shifts in a class or group, or in the campus population, may indeed be reflected in significant changes in behavior of individuals acting in concert.

Our recommendation is to regard the use of the before and after measurement as having this particularly important function, but to make the study of change become an effort of developing means for studying the process of change itself. Such an expansion should include development of methods that would attempt to focus more on individuals and small groups of students. An effort should be made to know the student in various situations in his life in the University, so that the contrasts and discrepancies in his experiences in the college would be more evident. This could be accomplished by more varied field observations, more intensive interviews (for example three successive interviews with the same student in two weeks each semester), and periodic discussions each semester with small groups of students acting as subjects and as participant observers for the research. Such methods would permit more focus on changes in overt behavior, on coincidence of events in the student's life, on whether such events are harmonious or discrepant and whether or not they are consciously observed by the student. We would then be asking ourselves such questions as, "When does the student become aware that the professor who excited her last year is speaking about ideas this year which the student has already had on her own? When does the student become aware of the difference between the military training program and the Experimental College Program?" and so on.

Efforts of this kind to study the process of change would represent a major new intrusion into the student's life. It would be an intrusion of such magnitude as to be unjustifiable and unwarranted, even for purposes of enhancing research about student development. The need for justification suggests a different frame of reference, however. The only justification for such an intrusion into the student's life is that he gain from it personally and in some immediate way. What suggests itself is the possibility of combining the function of providing consultation to the student (such as we have been recommending) and the research function. Whether a separate research activity or a part of his academic experience, his participation in the research could be made to provide an opportunity for his resolution of his issues and choices during college and at the same time provide an opportunity for the researcher to observe the change process at first hand. The student's participation would be to his immediate and direct benefit. A number of the students made use of the research interviews in this way. We are suggesting it could be formalized to the student's and the researcher's (and teacher's) benefit.

References

Adorno, T. W., Frenkel-Brunswik, E., Levinson, D., & Sanford, N. The authoritarian personality. New York: Harper, 1950.

Allport, G. The nature of prejudice. Cambridge: Addison Wesley, 1954.

Carlson, H. B. Attitudes of undergraduate students. Journal of Social Psychology, 1934, 5, 202-242.

Carroll, L. Alice in wonderland and through the looking glass. New York: Grosset & Dunlap, 1946.

Center for Study of Higher Education, University of California. Omnibus personality inventory: Research manual. Berkeley: Author, 1962.

Erikson, E. H. Childhood and society. New York: W. W. Norton, 1950.

Feldman, K. A. and Newcomb, J. M. The impact of college on students. San Francisco: Jossey-Bass, 1969.

Frank, L. D. On the importance of infancy. New York: Random House, 1966.

Freedman, M. B. The college experience. San Francisco: Jossey-Bass, 1967.

Haan, N., Smith, M. B., & Block, J. Moral reasoning of young adults: Political-social behavior, family background, and personality correlates. Journal of Personality and Social Psychology, 1968, 10, 183-201.

Harris, A. J., Remmers, H. H., & Ellison, C. E. The relation between liberal and conservative attitudes in college students and other factors. Journal of Social Psychology, 1932, 3, 320-335.

Heist, P., McConnell, T. R., Matsler, F., & Williams, P. Personality and scholarship. Science, February 10, 1961, 133 (3450), 362-367.

Heist, P. and Webster, H. Differential characteristics of student bodies --implications for the selection and study of undergraduates. Selection and Educational Differentiation. Berkeley, California Conference, May, 1959.

Katz, J. (Ed.) Growth and constraint in college students. U.S. Department of Health, Education, and Welfare Project No. 5-0799. Stanford, Calif.: Institute for the Study of Human Problems, Stanford University, 1967.

LaForge, R. and Suczek, R. The interpersonal dimension of personality III: An interpersonal check list. Journal of Personality, Vol. 24, No. 1, Sept. 1955.

Maslow, A. H. and Sakoda, J. M. Volunteer-error in the Kinsey report. Journal of Abnormal and Social Psychology, April, 1952, 47 (2), 259-262.

McLuhan, M. The medium is the massage. New York: Bantam Books, 1967.

Medawar, P. Facts and fiction about scientific method. McEnerny Lectures, University of California, Berkeley, 1966-1967.

Meiklejohn, A. The experimental college. New York: Harper and Brothers, 1932.

Newcomb, T. M. Personality and social change. New York: Holt, 1943.

Newcomb, T. M., Brown, D. R., Kulik, J., Reimer, D. J., & Revelle, W. R. Self selection and change. In J. Gaff (Ed.), Cluster colleges. San Francisco: Jossey-Bass, 1970. Pp. 137-160.

Plant, W. T. Longitudinal changes in intolerance and authoritarianism for subjects differing in amount of college education over four years. Genetic Psychology Monographs, 1965, 72, 247-287.

Plant, W. T. and Telford, C. W. Changes in personality for groups completing different amounts of college over two years. Genetic Psychology Monographs, 1966, 74, 3-36.

Roe, A. A psychological study of eminent psychologists. Psychological Monographs, General and Applied. American Psychological Association, 1953, 67 (2).

Roscoe, J. T. Religious beliefs of American college students. College student survey, 1968, 2, 49-55.

Sanford, N. A psychologist's view of individual development in the years after college. Commencement Address, University of Richmond, June 11, 1962. (a)

Sanford, N. Developmental status of the entering freshman. In N. Sanford (Ed.), The American college. New York: Wiley, 1962. Pp. 253-282. (b)

Sanford, N. (Ed.) The American college. New York: Wiley, 1962. (c)

Sanford, N. Self and society. New York: Atherton Press, 1966.

Sanford, N. Where colleges fail. San Francisco: Jossey-Bass, 1967.

Suczek, R. Self selection and special educational programs. Journal of Higher Education, 1970, in press.

Suczek, R. and Alfert, E. Personality characteristics of college dropouts. Washington, D.C.: Educational Research Information Center, 1965.

Trent, J. W. and Medsker, L. L. Beyond high school. Center for Research and Development in Higher Education, University of California, Berkeley, 1967.

Tussman, J. Obligation and the body politic. New York: Oxford University Press, 1960.

Tussman, J. The experimental program and the university. The Daily Californian, Oct. 12, 1967.

Tussman, J. Experiment at Berkeley. New York: Oxford, 1969.

Webster, H., Freedman, M., & Heist, P. Personality changes in college students. In N. Sanford (Ed.), The American college. New York: Wiley, 1962. Pp. 811-846.

Wheelis, A. The place of action in personality change. Psychiatry, 13, No. 2, May, 1950.

Wheelis, A. How people change. Commentary, 47, No. 5, May, 1969.

Explanation of Symbols Used in Tables

OMNIBUS PERSONALITY INVENTORY SCALES	
Social Maturity	SM
Impulse Expression	IE
Schizoid Function	SF
Estheticism	ES
Developmental Status	DS
Masculinity - Femininity	MF
IMPULSE EXPRESSION SUB SCALES	
Free Impulse	ID
Inhibited Impulse	INHIB
Ego - Syntonic Impulse	EGO
INTERPERSONAL CHECK LIST	
Managerial	AP
Competitive	BC
Blunt	DE
Skeptical	FG
Modest	HI
Docile	JK
Cooperative	LM
Responsible	NO
Total Words	TOTAL
Average Intensity of Words Used	INT
Dominance	DOM
Love (Affiliativeness)	LOVE
Ethnocentrism	E
Authoritarianism	F

Appendix

Experimental Collegiate Program
Fall, 1965

Required Textbooks

Herodotus. THE PERSIAN WARS, Modern Library.

Homer, THE ILIAD, Lattimore trans., Phoenix (University of Chicago).

Homer, THE ODYSSEY, Rieu trans., Penguin Books.

Hesiod, THE WORKS AND DAYS: THEOGONY: THE SHIELD OF HERAKLES,*
trans. by Richard Lattimore, Univ. of Michigan Press.

THUCYDIDES, Warner trans., Penguin Books.

XENOPHON, Rieu trans., Univ. of Michigan Press.

Plutarch, LIVES OF THE NOBLE GREEKS, Dell Laurel Class.

Plato, EUTHYPHRO, APOLOGY, CRITO, Library of Liberal Arts 4.

GORGIAS, Library of Liberal Arts 20.

PHAEDO, Library of Liberal Arts 30.

REPUBLIC

SYMPOSIUM, Library of Liberal Arts 7.

Sophocles I, THREE TRAGEDIES, University of Chicago Press.

Aeschylus I, ORESTEIA, University of Chicago Press.

Kitto, H. D. F., THE GREEKS, Penguin Books.

Aristophanes, COMPLETE PLAYS

*Hard Cover

Experimental College Program
January 11, 1966

TO STUDENTS IN THE ECP:

What follows is a PARTIAL LIST of the TEXTS that will be required for the spring semester; there will be ADDITIONAL MATERIAL assigned in the coming weeks. The EC Program will be reading the BIBLE over the next few months as a general reference for the semester. Assuming that you have all heard of this book, and that most of you will have a King James translation, we have not ordered a specific edition, but will leave it up to you to provide yourself with a BIBLE. We will be concerned mainly with the King James translation; a variety of editions will assure us of a richness and interesting, comparative span.

Shakespeare, KING LEAR, Signet Classics (CD 160)

Shakespeare, THE HISTORIES OF SHAKESPEARE, Complete & Unabridged w. notes and glossary, Vol I and II. Modern Library 6 and 7.

Shakespeare, HAMLET, Signet Classic (CD 169)

Bacon, ESSAYS OF FRANCIS BACON, Doubleday Dolphin C 67

Milton, THE PORTABLE MILTON, Viking P 44

Hobbes, LEVIATHAN, Everyman 691 A

Machiavelli, THE PRINCE, Mentor MP 417

Aubrey, John, BRIEF LIVES, Ann Arbor 68

Trevelyan, (Brief History of the period)

The above editions will be available for purchase in the local book stores at the beginning of spring semester.

ENJOY a Well-Deserved vacation and rest between semesters!

Experimental Collegiate Program
Fall Quarter, 1966

REQUIRED TEXTBOOKS

John Locke, 2ND TREATISE AND LETTER ON TOLERATION, (Ed. Sherman)
Appleton-Century-Crofts

Burke and Paine, REFLECTIONS ON FRENCH REVOLUTION/RIGHTS OF MAN
Dolphin

Henry Adams, UNITED STATES IN 1800, Cornell

THE FEDERALIST PAPERS, Meridion Books

C. M. Kenyon, THE ANTI-FEDERALIST, Bobbs-Merrill

Solberg, THE FEDERAL CONVENTION AND FORMATION OF UNION, Bobbs-Merrill

Joseph Tussman, SUPREME COURT ON CHURCH AND STATE, Oxford
SUPREME COURT ON RACIAL DISCRIMINATION, Oxford

A. Meiklejohn, POLITICAL FREEDOM, Oxford
EDUCATION BETWEEN TWO WORLDS

de Tocqueville, DEMOCRACY IN AMERICA, 2 vols., Vintage

The above items are all paperbacks. They may be purchased in the local book stores.

February 20, 1967

EXPERIMENTAL COLLEGIATE PROGRAM - SPRING QUARTER

The central task will be the writing of a major paper. It is to be, in essence, an intellectual autobiography in which a serious and sustained attempt is made to discover, clarify and express the basic ideas, beliefs, and attitudes which at this point dominate - so far as you can determine - your mind. It is to portray not only the frame of mind with which you arrived in the fall of 1965 but your Odyssey of the past two years including, especially, the impact of the reading and thinking you've done.

Work on this paper is to begin immediately upon completion of the present quarter and is to involve early drafts and consultation with faculty. The paper is due in its final form three weeks before the end of the regular class period. It should be at least 25 pages in length (typed - double spaced). Some suggestions may be derived from Santayana's "A Brief History of My Opinions," J. S. Mill's "Autobiography," or J. M. Keyne's Memoir of his Oxford days.

The Tuesday and Thursday sessions will continue roughly as at present and will be devoted to the discussion of three books:

1) The Brothers Karamazov (Magarshack trans.)
2) Ulysses, by James Joyce
3) The Education of Henry Adams, by Henry Adams

The working sections will be devoted to problems growing out of the writing of the paper.

The essay is to be regarded as your best effort to show what you can do at this stage of your education. Students who do not find this a challenging and interesting (although difficult) venture are advised to transfer to the regular program. There will be no internal alternative.